

# H.R. 5522, THE COMBUSTIBLE DUST EXPLOSION AND FIRE PREVENTION ACT OF 2008

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## HEARING

BEFORE THE  
COMMITTEE ON  
EDUCATION AND LABOR  
U.S. HOUSE OF REPRESENTATIVES  
ONE HUNDRED TENTH CONGRESS  
SECOND SESSION

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HEARING HELD IN WASHINGTON, DC, MARCH 12, 2008

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## **H.R. 5522, THE COMBUSTIBLE DUST EXPLOSION AND FIRE PREVENTION ACT OF 2008**

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**Wednesday, March 12, 2008  
U.S. House of Representatives  
Committee on Education and Labor  
Washington, DC**

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The committee met, pursuant to call, at 10:41 a.m., in Room 2175, Rayburn House Office Building, Hon. George Miller [chairman of the committee] presiding.

Present: Representatives Miller, Payne, McCarthy, Kuchinich, Wu, Sarbanes, McKeon, Platts, Keller, Wilson, Kline, and Davis of Tennessee.

Staff present: Aaron Albright, Press Secretary; Tylease Alli, Hearing Clerk; Jordan Barab, Senior Labor Policy Advisor; Jody Calemine, Labor Policy Deputy Director; Lynn Dondis, Policy Advisor for Subcommittee on Workforce Protections; Michael Gaffin, Staff Assistant, Labor; Peter Galvin, Senior Labor Policy Advisor; Brian Kennedy, General Counsel; Thomas Kiley, Communications Director; Danielle Lee, Press/Outreach Assistant; Alex Nock, Deputy Staff Director; Joe Novotny, Chief Clerk; Rachel Racusen, Deputy Communications Director; Michele Varnhagen, Labor Policy Director; Mark Zuckerman, Staff Director; Robert Borden, Minority General Counsel; Cameron Coursen, Minority Assistant Communications Director; Ed Gilroy, Minority Director of Workforce Policy; Rob Gregg, Minority Legislative Assistant; Richard Hoar, Minority Professional Staff Member; Alexa Marrero, Minority Communications Director; Jim Paretti, Minority Workforce Policy Counsel; Molly McLaughlin Salmi, Minority Deputy Director of Workforce Policy; Linda Stevens, Minority Chief Clerk/Assistant to the General Counsel; and Loren Sweatt, Minority Professional Staff Member.

Chairman MILLER [presiding]. The Committee on Education and Labor will come to order for the purposes of conducting a hearing on H.R. 5522, the Combustible Dust Explosion and Fire Prevention Act of 2008.

We are going to go ahead and start the hearing at this point. It appears that we will have a number of procedural and parliamentary votes and motions on the floor, so we are going to try to get through this in the best way we can this morning, and make sure that we have time for all of our witnesses.

And our first two witnesses will be first, the Honorable John Barrow, who represents Georgia's 12th Congressional District that includes the Imperial Sugar refinery. John and I are cosponsors of H.R. 5522, the subject of this hearing this morning.

We welcome you to the committee, and we thank you for the cooperation with the committee's staff and the help that your district office gave us as we sent staff down to the site of this accident.

When Mr. Kingston comes in, our colleague Jack Kingston is a congressman who represents Georgia's 1st Congressional District, which lies adjacent, as I understand it, to this area where the Imperial Sugar refinery is. He will also join us at the witness table. If he is delayed, we will call the panel, and we will take Congressman Kingston when he arrives.

If I might, just with some opening remarks say that, just over a month ago, an explosion ripped through the Imperial Sugar plant outside of Savannah, Georgia, killing 12 workers and critically injuring 11 others. The probable cause of this explosion was combustible sugar dust.

The loss of lives in a workplace incident is always a tragedy. But what is particularly troubling about the Imperial Sugar explosion is that not only was it preventable, but the U.S. Occupational Safety and Health Administration had been specifically warned about the dust hazards, and provided a guidance on how to address them.

The U.S. Chemical Safety Board warned OSHA over a year ago that existing standards were inadequate to guard against the risk of industrial dust, like sugar building up in dangerous levels and exploding.

As we will hear today, in 2006, the Chemical Safety Board issued a comprehensive study that identified hundreds of combustible dust incidents that had killed over 100 workers during the previous 25 years. The Chemical Safety Board report found that no comprehensive federal rules exist to control the risk of dust explosions in general industry, and recommended that OSHA issue such rules.

Tragically, well more than a year after the Chemical Safety Board's report was issued, OSHA has taken no action to issue combustible dust rules.

In today's hearing, we will discuss legislation, H.R. 5522, to require OSHA to issue a standard to protect workers against combustible dust explosions. The new standard would be based on the well-recognized, highly effective, voluntary standards issued by the National Fire Protection Association.

Sadly, OSHA's failure to act on combustible dust is not the first time the agency's inaction may have cost workers their lives. For example, December 19, 2007, four workers died in a massive explosion at the T2 Chemicals plant in Jacksonville, Florida. The likely cause was a runaway chemical reaction.

The Chemical Safety Board had warned OSHA about this chemical reaction hazard in a 2002 report that identified 108 fatalities in the previous 20 years, resulting from explosions caused by chemical reactions. The Chemical Safety Board report made recommendations for addressing reactive hazards, but as with the dust hazard, OSHA chose not to follow up on the recommendations.

Instead, OSHA chose to rely on the compliance assistance and voluntary programs, such as industry alliances, Web pages, fact

sheets, speeches and booths at industry conferences. The Chemical Safety Board judged these voluntary activities to be unacceptable.

The bottom line is that, under the Bush administration, OSHA has utterly failed to fulfill its congressional mandate. The agency is leaving the Congress with no choice but to step in.

Just look at the record of the last 12 months. On March 22, 2007, this committee held a hearing on a British Petroleum, Texas City refinery explosion that killed 15 workers. In the decade before our hearing, OSHA had not conducted a single comprehensive inspection of any refinery in the United States. Two days before the hearing, OSHA announced it would step up inspections in refineries nationwide.

On April 24, 2007, the Subcommittee on Workforce Protections held a hearing on OSHA's failure to address the deaths and illnesses of workers in the food flavoring industry—deaths caused by the horrific, irreversible lung disease now called “popcorn lung.”

Hours after the hearing, OSHA announced the so-called “National Emphasis Program,” targeting food and flavoring manufacturers.

On September 26, 2007, the House approved a bill forcing OSHA to develop rules to protect food flavoring workers. Just hours before that vote, OSHA announced it was going to start the rulemaking process.

The day after the Imperial Sugar explosion, Congresswoman Lynn Woolsey and I sent a letter to Secretary Chao requesting that standards on combustible dust on the morning of March 3rd. After receiving no response from Secretary Chao, Congressman Barrow and I introduced H.R. 5522.

Coincidentally, the same morning as we made the announcement, Assistant Secretary Foulke was in Savannah conducting a series of press interviews, and he announced that OSHA would conduct more combustible dust inspections and send letters to companies at risk.

But there is no reason for OSHA to get to work on issuing new rules that would prevent this kind of disaster in the future. The National Fire Protection Association and others have known for a long time what causes these explosions, and the National Fire Protection Association's voluntary standards are feasible and affordable.

Unfortunately, we see this tragic pattern in workplace injury or death followed by OSHA inaction everywhere we look. We see it in the agency's failure to inspect refineries, in its failure to issue new workplace safety rules, and its failure to address ergonomic hazards and its failure to effectively address the potential hazards of pandemic flu, and its failure to meet even its own deadlines on standards for workers' personal protection equipment and other life-threatening hazards.

It is this highly questionable injury and illness statistics and its promotion of voluntary programs over strong law enforcement that troubles us.

Let me be clear. The Congress will continue to step in until OSHA starts to consistently and aggressively fulfill its responsibility of protecting the lives of American workers.

I would like to thank all of our witnesses in advance for joining us today, and the committee appreciates your testimony.

Congressman Barrow, welcome to the committee. And we look forward to your testimony.

[The statement of Chairman Miller follows:]

**Prepared Statement of Hon. George Miller, Chairman, Committee on  
Education and Labor**

Just over a month ago, an explosion ripped through the Imperial Sugar plant outside of Savannah, Georgia, killing 12 workers and critically injuring 11 others. The probable cause of this explosion was combustible sugar dust.

The loss of lives in workplace incidents is always a tragedy. But what's particularly troubling about the Imperial Sugar explosion is that, not only was it preventable, but the U.S. Occupational Safety and Health Administration had been specifically warned about dust hazards and provided with guidance on how to address them.

The U.S. Chemical Safety Board warned OSHA over a year ago that existing standards were inadequate to guard against the risk of industrial dusts, like sugar, building up to dangerous levels and exploding.

As we will hear today, in 2006 the CSB issued a comprehensive study that identified hundreds of combustible dust incidents that had killed over 100 workers during the previous 25 years. The CSB report found that no comprehensive federal rules exist to control the risk of dust explosions in general industry and recommended that OSHA issue such rules.

Tragically, well more than a year after the CSB report was issued, OSHA has taken no action to issue combustible dust rules.

In today's hearing we will discuss legislation, H.R. 5522, to require OSHA to issue a standard to protect workers against combustible dust explosions. The new standard would be based on well-recognized, highly effective voluntary standards issued by the National Fire Protection Association.

Sadly, OSHA's failure to act on combustible dust is not the first time that the agency's inaction may have cost workers their lives.

For example, on December 19, 2007, four workers died in a massive explosion at the T2 Chemicals plant in Jacksonville, Florida, that was likely caused by a runaway chemical reaction.

The CSB had warned OSHA about this chemical reaction hazard in a 2002 report that identified 108 fatalities in the previous 20 years resulting from explosions caused by chemical reactions. The CSB report made recommendations for addressing reactive hazards, but as with dust hazards, OSHA chose not to follow the recommendations.

Instead, OSHA chose to rely on compliance assistance and voluntary programs, such as industry "alliances," web pages, fact sheets, speeches and booths at industry conferences. The Chemical Safety Board judged these voluntary activities to be "unacceptable."

The bottom line is that, under the Bush administration, OSHA has utterly failed to fulfill its Congressional mandate. The agency is leaving the Congress with no other choice but to step in.

Just look at the record of the past 12 months.

On March 22, 2007, this committee held a hearing on the BP Texas City refinery explosion that killed 15 workers. In the decade before our hearing, OSHA had not conducted a single comprehensive inspection of any refinery in the United States. Two days before the hearing, OSHA announced that it would step up inspections of refineries nationwide.

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The day after the Imperial Sugar explosion, Congresswoman Lynn Woolsey and I sent a letter to Secretary Chao requesting a standard on combustible dust. On the morning of March 3, after receiving no response from Secretary Chao, Congressman John Barrow and I announced that we would introduce H.R. 5522.



Coincidentally, the same morning that we made the announcement, Assistant Secretary Foulke was in Savannah conducting a series of press interviews. He announced that OSHA would conduct more combustible dust inspections and send letters to companies at risk.

But there is no reason for OSHA to wait to get to work on issuing new rules that would prevent this kind of disaster in the future. The National Fire Protection Association and others have known for a long time what causes these explosions, and the NFPA's voluntary standards are feasible and affordable.

Unfortunately, we see this tragic pattern of workplace injury or death followed by OSHA inaction everywhere we look.

We see it in the agency's failure to inspect refineries; in its failure to issue new workplace safety rules; in its failure to address ergonomic hazards; in its failure to effectively address the potential hazards of pandemic flu; in its failure to meet even its own deadlines on standards for workers' personal protective equipment and other life threatening hazards; in its highly questionable injury and illness statistics; and in its promotion of voluntary programs over strong enforcement of the law.

Let me be clear: Congress will continue to step in until OSHA starts consistently and aggressively fulfilling its responsibility of protecting the lives of America's workers.

I'd like to thank all of our witnesses for joining us today. The committee appreciates your testimony.

Thank you.

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**STATEMENT OF HON. JOHN BARROW, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF GEORGIA**

Mr. BARROW. Thank you, Mr. Chairman. And thank you for calling this hearing on H.R. 5522, the Combustible Dust Explosion and Fire Prevention Act of 2008.

Just over a month ago, on February 7, the Imperial Sugar refinery in Port Wentworth, just outside my home of Savannah, was destroyed by a massive explosion. The explosion killed 12 people, maimed dozens more and shut down the economic engine that drove an entire community.

I have visited with the families of the dead and the dying. I have attended the meetings. I have attended the memorial services.

And the question I hear over and over again is "Why?" Why did this happen, and what can we do to prevent this from happening again?

It turns out that the cause is something that most folks do not even know about at all, do not know it is the least bit dangerous at all, and that is: too much sugar dust all over the place.

It also turns out, there are lots and lots of other industrial dust that can cause massive explosions like this, and have been causing massive explosions like this, for as long as manufacturing plants have been generating dust on an industrial scale.

What we have learned in my community since this disaster hit us, is that the experts in the field have known about this problem for decades. There have been voluntary standards that effectively deal with this problem, but not enough people know about the problem, much less the solutions. And even those who know about the solutions are not required to adopt them.

We have also learned that the only standards that are mandatory really are not designed with this problem in mind, and they are not working.

And so, we have good standards that are not mandatory, and inadequate standards that are mandatory.

So, here we are again. Once again the cry goes up to fix this problem that has been around for so long. Only this time—this

time—we are not going to forget about what happened, and we are not going to stop until we do what we can to cut down this risk as much as possible.

Up until now, the argument has been between those who say we should not go too fast in developing a national standard and those who argue that we are going too slow. There are those who argue that the costs of a comprehensive solution outweigh the benefits.

We have even had some people argue that we should go slow in adopting a national standard, because we run the risk of encouraging employers to take our jobs to some other country where they do not care as much about worker safety as we do.

I disagree. I say, if we can prevent just one of these disasters from happening, if we can prevent just one family from going through what the families at Imperial Sugar are going through, it would be worth it.

Meanwhile, something has happened that sheds a whole new light on the debate, and gives us a whole new reason for adopting a national standard, and doing so as quickly as we can. Because Georgia is not waiting for Congress to act. The Georgia insurance commissioner, John Oxendine, has exercised his authority under Georgia law to adopt the voluntary standards promulgated by the people who know best how to prevent these disasters from happening, the NFPA, and to make those standards mandatory—but in Georgia.

Now, I commend him for his prompt action, but I want to emphasize that this action gives us a new and compelling reason for national action, because it is no longer an issue about losing jobs to foreign markets where they do not care about worker safety as much as we do. We now have to worry about Americans losing jobs to other Americans, just because they happen to live in states where they have not learned the lessons of Imperial Sugar yet.

Unsafe competition is unfair competition, and the specter of unsafe competition from abroad is bad enough. But the reality of unsafe competition right here at home is even worse.

If we really want to do what we can to prevent this from happening, we need to act. And we need to act now.

The bill that Chairman Miller and I have introduced essentially does two major things.

First, it directs OSHA to issue a rule within 90 days, which would, as a general matter, require manufacturers to comply with the NFPA standards that right now are purely voluntary. Basic safety would no longer be an employer option, and it would no longer be a local option. It would be a common obligation and a common right.

Second, our bill would give OSHA the opportunity to modify or revise the rule before it becomes final, if they think they can make it better. But it shifts to OSHA the burden of showing how those standards can be made better, and we do not leave workers at risk for as long as that can take.

I commend the members of this committee, especially Chairman Miller and Congresswoman Woolsey, for trying to do something about this for a long time. The time to act is now. We owe it to the victims of last month's tragedy and to all the other victims be-

fore that to do what we can to prevent this sort of thing from ever happening again.

Thank you, Mr. Chairman.

[The statement of Mr. Barrow follows:]

**Prepared Statement of Hon. John Barrow, a Representative in Congress  
From the State of Georgia**

Mr. Chairman, thank you for calling this hearing on H.R. 5522, the "Combustible Dust Explosion and Fire Prevention Act of 2008."

Just over a month ago, on February 7, the Imperial Sugar Refinery in Port Wentworth, just outside of Savannah, was destroyed by a massive explosion. The explosion killed 12 people, maimed dozens more, and shut down the economic engine that drove an entire community.

I've visited with the families of the dead and dying, I've attended the meetings, and I've attended the memorial services. And the question I've heard over and over again is, Why? Why did this happen? And what can we do to prevent this from happening again?

It turns out that the cause was something that most folks don't know is the least bit dangerous: too much sugar dust all over the place.

It also turns out that there are lots and lots of other industrial dusts that can cause massive explosions like this, and have been causing explosions like this, for as long as manufacturing plants have been generating dust on an industrial scale.

What we've learned in my community since this disaster hit us is that the experts in the field have known about this problem for decades. There've been voluntary standards that effectively deal with this problem, but not enough people know about the problem, much less the solutions, and even those who do know about the solutions aren't required to adopt them. We've also learned that the only standards that ARE mandatory really aren't designed with this problem in mind, and they aren't working. And so we have good standards that aren't mandatory, and inadequate standards that are mandatory.

So, here we are again, and once again the cry goes up to fix this problem that's been around for so long. Only this time, we're not going to forget about what happened, and we're not going to stop until we do what we can to cut down this risk as much possible.

Up until now the argument has been between those who say that we shouldn't go too fast in developing a national standard, and those who argue that we're going too slow. There are those who argue that the costs of a comprehensive solution outweigh the benefits.

We've even had some argue that we should go slow in adopting a national standard because we run the risk of encouraging employers to take our jobs to some other country where they don't care as much about worker safety as we do.

I disagree. I say if we can prevent just one of these disasters from happening, if we can prevent just one family from going through what the families of Imperial Sugar are going through, it'd be worth it.

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I commend him for his prompt action, but I want to emphasize that his action gives a new and compelling reason for national action. Because it's no longer an issue about losing American jobs to foreign markets where they don't care about worker safety as much as we do. We now have to worry about Americans losing jobs to other Americans, just because they happen to live in states where they haven't learned the lessons of Imperial Sugar yet. Unsafe competition is unfair competition, and the specter of unsafe competition from abroad is bad enough. But the reality of unsafe competition right here at home is even worse.

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I commend members of this Committee, especially Chairman Miller and Congresswoman Woolsey, for trying to do something about this for a long time. The time to act is now. We owe it to the victims of last month's tragedy—and to all the other victims before that—to do what we can to prevent this sort of thing from ever happening again.

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Chairman MILLER. Well, thank you. And thank you very much for taking your time and coming to testify, but also the time that you have spent with the victims, the workers and the managers of this facility.

You mentioned one of the common arguments, and that is that somehow, if we impose these regulations, that that will drive jobs overseas. That is commonly used by people who do not want the regulation. But I just wondered what you see, what kind of reaction you are getting from your constituents.

Mr. BARROW. Again, Mr. Chairman, the idea of unsafe competition being something we have to compete with on a national level is bad enough. But while other states are moving—states are moving forward on a state-by-state basis to try and address this problem. The reality is we have got unsafe competition right here at home.

And I think the specter of unsafe competition abroad is exaggerated. We should not tolerate that either. We should insist, as a condition of fair trade agreements and the like, that folks incorporate the cost of doing things safely in our competing markets, just like we incorporate the cost of doing things safely as a cost of doing business in our country.

As I have said, unsafe competition is unfair competition. That is true at the national level, and it is also going to be true—if we do not act at the national level, it is going to be true right here at home.

Chairman MILLER. When you—you know, one of the tragic circumstances—when you discuss this with your constituency, do you get any sense that there was an awareness or a plan to deal with this risk, or there was knowledge of people of what this risk was inside that facility or in the community?

Mr. BARROW. The sense that I get, Mr. Chairman, is the folks who work in the plants are generally aware that there is some risk. But what is all too obvious is that the standards that were in force and the standards that were in effect nationwide are not adequate to prevent this sort of thing from happening.

It is one thing to know about it, and it is another to realize just how great the likelihood of an incident is.

And the greater the gravity of the harm, the less likelihood you have to have in order to have a need to act. And that is what I think we are dealing with here.

Chairman MILLER. Thank you.

Mr. BARROW. I would like to welcome my colleague, Jack Kingston, here.

Chairman MILLER. Mr. Kingston, we welcome you. We are trying to fit this testimony in and out of the votes. And I was told there was not going to be a second vote. But I see, obviously, there is a second vote. But thank you for coming over, and we have some minutes here. I don't know if you have made this vote.

**STATEMENT OF HON. JACK KINGSTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA**

Mr. KINGSTON. And I am sorry that I was not here for my colleague's testimony.

I just want to say that, thank you very much for inviting me. And I appreciate this committee's interest in dust standards. And I think it is good to have this hearing.

And I think it is important to act quickly, and also act effectively, because the goal that we all share is to prevent accidents like this in the future. And I know we are all united in comprehensive worker safety.

I am a little concerned about the bill, that in its present form it could have some unintended consequences. Primarily, my concern is that it may be a one-size-fits-all approach.

We need to make sure that we have regulations tailored to different types of dust and different types of industries. Just to name a few, there is coal, there is metal, there are organics, there is sugar, there is plastic, wood and pharmaceutical dust, each with its own chemical properties, each with its own flashpoints. And I think the bill should be careful to address those differences.

Another thing, the bill does not call for more inspections from OSHA. Now, that might be something that we need to look at from an appropriations standpoint. But there are about 80,000 plants in the country that have potential dust-related hazards. But since this legislation does not call for additional inspections, housekeeping and violations of the General Duty Clause of the 1970 Occupational Safety and Health Act could continue to be a problem.

And H.R. 5522 recommends a rule based on having no less protection than the National Fire Protection Association standards. The NFPA 654 and NFPA 484 feature numerous provisions which are comparable to existing OSHA standards, such as housekeeping controls for accumulation of combustible dust and electrical ignition sources.

Other parts of NFPA 654 and 484 would actually expand the scope of OSHA's authority into areas such as building design. And that may be the intent of the committee, but I think we need to be aware of that.

In addition, NFPA 61 is not mentioned in the bill, but that is the portion that covers ag products such as sugar. And certainly, we should look at that in terms of this legislation.

Also, H.R. 5522 requires that OSHA violate its statutory mandate for a public comment period. I see why Congress wants to move quickly. But doing so could eliminate helpful comments from thousands of industry stakeholders, employees and unions, who could contribute helpful suggestions and concerns.

Without the appropriate timeframe for evaluation and their input, it will be difficult for OSHA to determine any unintended consequences of this regulation.

And finally, we do not definitely know what caused this tragedy. Numerous inspectors are trying to answer that question, even as we meet today. These include OSHA, the Chemical Safety Board, the Bureau of Alcohol, Tobacco and Firearms, local fire inspectors, and insurance adjusters.

Among these questions are, what ignited the dust? Why, after 90 years of operation, did an explosion of this size occur? Was there a change in dust containment? Was there a lapse in housekeeping? Did the ventilation change? Was there a process in change?

Certainly, answers to these questions are going to be relevant to effective legislation. While fast action is desired, appropriate action and regulation should not be discounted.

I hope we can meet both these objectives, and I look forward to working with you and Mr. Barrow. And I thank Mr. Barrow for introducing this.

And with that, Mr. Chairman, that is my testimony.

[The statement of Mr. Kingston follows:]

**Prepared Statement of Hon. Jack Kingston, a Representative in Congress  
From the State of Georgia**

Good morning Chairman Miller, Ranking Member McKeon, and colleagues, and thank you for inviting me. Today's hearing is about dust standards, and I am sure we will talk in great detail about that. I am here today to encourage a proper balance between acting quickly and acting effectively. We should work to guarantee a standard that prevents future accidents like this. I know we all share the goal of comprehensive worker safety.

I am concerned that this well-intended bill, in its present form, may have some unintended consequences. Primarily, it is a "one-size-fits-all" approach. As such, it fails to tailor the regulation for different types of dusts and the many different industries which create this dust. Just to name a few, dust is produced by coal, metal, organics, sugar, plastics, wood, and pharmaceuticals. Each has its own chemical properties and flashpoints. I believe the bill should be amended to address these differences.

This legislation does not call for more inspections from the Occupational Safety and Health Administration (OSHA). There are around 80,000 plants that have potential dust-related hazards. Thus, since this legislation doesn't call for additional inspections, housekeeping and violations of the "general duty" clause of the 1970 OSH Act could continue to be a problem.

H.R. 5522 recommends a rule based on having "no less protection" than the National Fire Protection Association's (NFPA) standards. The NFPA 654 and NFPA 484 feature numerous provisions which are comparable to existing OSHA standards, such as housekeeping controls for accumulation of combustible dust and electrical ignition sources. Other parts of NFPA 654 and 484 would expand the scope of OSHA's authority into areas such as building design. Is this the intent of the Committee? In addition, NFPA 61 covers agricultural products including sugar but is not listed in the legislation. Certainly, this should be remedied.

H.R. 5522 requires OSHA to violate its statutory mandate for a public comment period. I see why Congress may want to move quickly, but doing so eliminates helpful comments from thousands of industry stakeholders, employees, and unions who could contribute their helpful suggestions and concerns. Without the appropriate time frame for evaluation and their input, it will be difficult for OSHA to determine any unintended consequences of this regulation.

Finally, we don't know definitively what caused this tragedy. Numerous inspectors are trying to answer that question even as we meet today. These include OSHA, the Chemical Safety Board, the Bureau of Alcohol, Tobacco and Firearms, local fire inspectors and insurance adjusters. Among these questions are, what ignited the dust? Why, after 90 years in operation, did an explosion of this size occur? Was there a change in dust containment? Was there a lapse in dust housekeeping? Did the ventilation change? Was there a processing change? Certainly, the answers to these questions are relevant to effective legislation.

While fast action is desired, appropriate action and regulation should not be discounted. I hope we can meet both objectives and look forward to working with you as we progress.

Chairman MILLER. Thank you very much for your testimony, and we have a couple of minutes remaining here.

I think when—just your suggestion, Congressman Kingston, that, you know, there a lot of different types of industries where dust is created in the process.

I think one of the encouraging things is the Chemical Safety Board looked across these industries. Many of them are very different in both product and processing. But what they saw was, you did not have a consistent system with integrity of removing the fuel from this. Ignition points come in all different fashions, but it is the presence of the fuel.

And when they looked at this, they did not see a framework to make sure that that fuel was minimized during this process. There were a lot of different procedures that people could follow, and a lot of different places they could go to get information, but nothing that really required a comprehensive framework for the removal of that dust.

And that is the challenge. And that is what this hearing is about, is that conflict.

Congressman Barrow?

Mr. BARROW. Thank you, Mr. Chairman.

I just want to add some emphasis to some of the things that Jack said.

I agree with the idea that we have to have appropriate input from the appropriate stakeholders. But I would point out that the NFPA standards have evolved as the result of give-and-take and input from every conceivable sector of the industrial economy in this country for over 60 years now.

What is needed is not input, because we have got that. What is needed is the will to act.

When you have got an agency that does not know its job or does not care about its job, or it has got all kinds of reasons for not doing its job, it is a little bit like going bird hunting and having to tote the dog.

What we need is the will to act. And if the agency will not do it, we need to get going ourselves, and put the standards on the books that will protect people for as long as it takes them to do their job.

Chairman MILLER. Well, you know, when you and I talked about possible legislation or how we would respond, there was concern that we would start drafting regulations here in this committee, and then impose them.

And of course, what we found was, here is a series of regulations that are in force and effect in many, many areas in the state—in the country—and they have evolved. They had—it is sort of a continuous process of inputs about how to evolve these regulations.

So, you know, if that is—

Mr. BARROW. It evolved in the private sector—

Chairman MILLER [continuing]. That is a starting point for OSHA, not the final point.

Mr. BARROW. They have evolved in the private sector, and they are working in the private sector, where they are being implemented.

Chairman MILLER. Anything else?

Mr. BARROW. Thank you, Mr. Chairman.

Chairman MILLER. We are going to go—you have questions?

Mr. McKEON. No questions.

Chairman MILLER. No questions, okay.

We are going to recess, I guess, for a moment here. This is a very well orchestrated process we have going here between the floor and the committee.

Hopefully, we will get done with this series of votes as soon as possible. We will return, and we will begin with our next panel.

Again, Congressman Barrow, Congressman Kingston, thank you for your time and for your testimony.

The committee will return as soon as possible.

[Recess.]

Chairman MILLER. We will reconvene the committee. And if we could have our next panel come forward.

Thank you in advance for your testimony. Thank you for your participation in today's hearing. I think it is a critically important hearing. And thank you for your patience in putting up with the congressional floor schedule, we will say, at the moment.

It is a little bit unpredictable, but there are two stories. Either we are going to have about an hour, or we are going to be right back on the floor very quickly. So, we will see.

Our next panel is made up of Mr. William E. Wright. William Wright was appointed to the U.S. Chemical Safety and Hazards Investigation Board in September 2006. Immediately prior to his appointment to the board, Mr. Wright served 5 years as chairman of the Department of Defense Explosives Safety Board.

Mr. Wright served in the Navy Special Operations Explosive Ordnance Disposal Community, and Mr. Wright earned his bachelor's degree and a master's of business administration from the University of Puget Sound, and a master's of arts degree in National Security and Strategic Studies from the U.S. Naval War College.

Tammy Miser, who lost her brother, Shawn Boone, in 2003, in an explosion at the Hayes Lemmerz cast aluminum automotive wheel manufacturing plant in Huntington, Indiana. Ms. Miser is the founder of the United Support and Memorial For Workplace Fatalities, an organization that provides support and memorials and awareness to families of workers killed on the job. She was the winner of the 2007 Tony Mazzocchi Award from the Occupational Section of the American Public Health Association.

Edwin Foulke was appointed assistant secretary of labor for occupational safety and health in September 2005. Prior to his nomination, Mr. Foulke was a partner in the law firm of Jackson and Lewis of Greenville, South Carolina, and Washington, D.C.

Mr. David Sarvadi is an attorney with Keller and Heckman in Washington, D.C., and represents clients in the areas of occupational health, safety, toxic substances and management of pesticide regulation, employment law and product safety. He is a certified industrial hygienist.

Amy Spencer is a senior chemical engineer at the National Fire Protection Association in Quincy, Massachusetts. She has been with the NFPA 12 years. And prior to joining this organization, she



worked at the National Institute of Occupational Health and Safety.

Welcome to the committee. We look forward to your testimony. When you begin, a green light will go on, and when you have 1 minute left of the 5 minutes, an orange light will go on. We would like you to try to wrap up your testimony, but we certainly want you to complete your thoughts and the purpose of your testimony. And then it will be a red light.

Mr. Wright, we are going to begin with you.

**STATEMENT OF BILL WRIGHT, INTERIM CHAIR, U.S.  
CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD**

Mr. WRIGHT. Thank you, Chairman Miller, Ranking Member McKeon and distinguished members of the committee.

I am William Wright, testifying today on behalf of the U.S. Chemical Safety Board, including members William Wark and Gary Visscher.

I commend you for convening today's hearing and for your leadership on this issue.

Mr. Chairman, the disastrous accident at Imperial Sugar is but the latest of a long series of tragic dust explosions going back over decades. Dust explosions kill and injure American workers, destroy jobs and businesses and shatter communities.

No one knows that better than Tammy Miser. After losing her brother Shawn to a dust explosion, she has courageously dedicated her life to drawing attention to this deadly hazard.

Mr. Chairman, these human tragedies are preventable. Without accumulated dust, the most catastrophic type of dust explosion will not occur. Good engineering and safety practices to prevent dust explosions have existed for decades in the standards of the National Fire Protection Association, NFPA.

In 2003, the CSB investigated three catastrophic dust explosions in North Carolina, Kentucky and Indiana that caused a total of 14 deaths and dozens of injuries. We found that all three facilities had longstanding dust hazards. State OSHA officers had inspected all three facilities prior to the accidents, but the dust hazards were never recognized or cited.

Furthermore, the CSB determined that all three explosions could likely have been prevented, if the facilities had implemented NFPA-recommended practices.

Like these others, our preliminary findings indicate the explosion at Imperial Sugar appears to have been a multi-stage event. An unknown primary event most likely dislodged sugar dust that had accumulated over a long period on surfaces throughout the facility.

This dislodged dust fueled devastating secondary explosions that killed and burned workers. This facility was decades old and had many horizontal surfaces where dust could collect, such as overhead floor joists, rafters and duct work. Witnesses have described substantial snow-like accumulations of sugar dust on these surfaces.

Most employees and contractors have received little training on the explosion hazard from accumulated dust. And no witnesses have indicated that the facility had a program to fully implement NFPA standards for combustible dust.

Our investigation to-date clearly links the accident at Imperial to many earlier dust explosions investigated by the CSB and others.

In November 2006, the CSB completed a comprehensive study of the problem of combustible dust. We determined this problem was nationwide and urgent. The problem shows no sign of diminishing. And in fact, the Imperial accident last month is the deadliest industrial dust explosion in the United States since 1980.

Our dust study identified 281 dust fires and explosions that occurred at U.S. businesses between 1980 and 2005, causing 119 deaths and 718 injuries. And since 2005, about 70 additional dust explosions have been reported.

The CSB study called on OSHA to develop a comprehensive regulatory standard for dust explosions in general industry, to improve training of OSHA inspectors and to require better communication of dust hazards for workers using material safety data sheets.

And as an interim measure, we also recommended that OSHA establish a national emphasis program to better enforce existing standards. And we commend OSHA for having undertaken such a program in October 2007.

OSHA's existing requirements, including the general duty clause and the housekeeping standard, apply to combustible dust hazards. However, a comprehensive dust standard would be more effective, by focusing both employers' and inspectors' attention on this hazard and the steps that should be taken to prevent dust explosions and fires.

In 1987, OSHA issued a standard to prevent grain dust explosions. This standard has cut deaths and injuries from grain dust explosions by 60 percent. The grain dust standard requires a formal written housekeeping program with cleaning schedules, identification of priority cleaning areas and the immediate safe removal of any dust accumulations over an eighth of an inch.

In addition to housekeeping, industrial facilities need to consider proper equipment design, maintenance, building design, explosion venting and control of ignition sources.

Finally, workers must be made aware of the hazards of combustible dust and trained on the safe methods for working within dust environments.

The NFPA codes contain recommendations on all these topics. And like all other voluntary consensus standards, the NFPA dust codes will need to be carefully reviewed and adapted to create regulations that are reasonable and appropriate for a wide variety of affected industries and workplaces.

Mr. Chairman, we urge the prompt development of a comprehensive dust standard as we recommended in our 2006 dust study. This will not only save lives, protect U.S. jobs and businesses, but also protect our communities.

Thank you for the opportunity to testify today, sir.

[The statement of Mr. Wright follows:]

**Prepared Statement of Hon. William E. Wright, Board Member and Interim Executive, U.S. Chemical Safety Board**

Thank you, Chairman Miller, Ranking Member McKeon, and distinguished members of the Committee. I am William E. Wright, board member and interim executive of the U.S. Chemical Safety Board.

The CSB is an independent federal agency that investigates and determines the causes of major chemical accidents, conducts studies, and develops safety recommendations and outreach materials to prevent future accidents.

I present my testimony today on behalf of the full board, including Members William Wark and Gary Visscher.

I commend you for convening today's hearing and for your leadership on this issue. On behalf of everyone at the agency, I extend my deepest condolences to the families of the victims in Port Wentworth and our prayers for the recovery of the injured.

Mr. Chairman, the disastrous accident at Imperial Sugar is but the latest in a long series of tragic dust explosions at U.S. industrial facilities stretching back over decades.

Combustible dust can pose a serious fire and explosion hazard at thousands of U.S. industrial facilities. Dust explosions kill and injure American workers, destroy jobs and productive enterprises, and shatter communities.

These accidents are particularly sad because they leave behind a trail of broken lives. Often, even the most advanced medical care cannot cure the severe burn injuries caused by combustible dust explosions. Those who survive are often left badly disabled and disfigured, facing a lifetime of struggle and pain.

No one knows that better than Tammy Miser, who is sitting at the witness table today. After losing her 33-year-old brother Shawn to a dust explosion in Indiana four years ago, Tammy has courageously dedicated her life to drawing attention to this deadly hazard.

Mr. Chairman, these tragedies are preventable. The key to avoiding the most devastating accidents is to eliminate the basic fuel, the combustible dust that accumulates over time inside plants and awaits some event to trigger a massive explosion.

Without accumulated fuel, the most catastrophic type of dust explosion can not and will not occur.

Our investigation to determine the causes of the tragedy at Imperial Sugar is ongoing. The CSB field team remains in Georgia, overseeing what we expect will be several months of painstaking work to dismantle and examine the heavily damaged sections of the refinery.

However, the investigation team has made some preliminary findings. Like many catastrophic dust explosions, this was a multi-stage event. There was a primary event, the nature of which remains unknown. The primary event most likely dislodged sugar dust that had accumulated over a long period on surfaces around the facility. This dislodged dust was the fuel for additional explosions.

Devastating explosions propagated through a large section of the refinery, destroying the sugar packaging plant and causing catastrophic injuries to multiple employees and contractors.

Eight people died in the refinery, and four others died later in the hospital of severe burn injuries. Approximately 35 others were injured. Eight remain critically ill in an Augusta burn center, facing a difficult and uncertain future.

This facility was decades old and had many horizontal surfaces where dust could collect. These included overhead floor joists, rafters, ductwork, piping, and equipment. Witnesses have described substantial, snow-like accumulations of sugar dust on these surfaces.

Most employees and contractors had received little training on the explosion hazard from the accumulated dust.

No witnesses have indicated that the facility had a program to fully implement NFPA standards for combustible dust.

While there is much still to be determined about the tragedy at Imperial Sugar, the findings to date clearly link this accident to many earlier dust explosions investigated by the CSB and others.

In November 2006, the CSB completed a comprehensive study of the problem of combustible dust. We began this study out of necessity, after having to investigate three fatal dust explosions in 2003 alone that caused 14 deaths.

The CSB study identified 281 dust fires and explosions that occurred at U.S. businesses between 1980 and 2005—not including primary grain handling or underground coal dust explosions.

Dust explosions afflict many industries, including food products, plastics, automotive parts, drugs, chemicals, and electric utilities. A wide range of combustible materials can explode in finely powdered form, including coal, wood, flour, sugar, and many chemicals, plastics, and metals.

These accidents caused 119 deaths and more than 718 injuries. In the two years since we compiled the data for the study, media reports indicate that approximately 67 additional dust fires and explosions have occurred. A number of these reportedly caused moderate to severe facility damage. Our information on these incidents does

not tell us how many of these were primary dust explosions, such as may occur in a dust collection system, and secondary explosions which typically involve accumulated dust and are often the more destructive dust explosions.

Our investigation found that good engineering and safety practices to prevent dust explosions have existed for decades. Current good practices are contained in National Fire Protection Association (NFPA) standards, such as NFPA 654 and NFPA 484. These standards are cited in the Miller-Barrow legislation now before the committee.

Some state and local governments have adopted NFPA standards as part of their fire codes, but many have not. Our study also found that enforcement of these codes at industrial facilities is, at best, uneven.

Code enforcement agencies heavily emphasize the inspection of high occupancy establishments such as hotels, schools, and nursing homes—not industrial facilities. These agencies often lack the training or staffing to inspect industrial sites or enforce technical standards for combustible dust. Because hundreds of different state and local jurisdictions are involved in code enforcement across the country, there is no straightforward way to improve this system.

In the 1970s and 1980s, the U.S. experienced a series of grain dust explosions that caused a number of deaths. OSHA responded in 1987 by issuing a comprehensive grain dust standard. This standard requires preventive maintenance, worker training, safe operating procedures, emergency planning, and formal dust cleaning programs.

According to OSHA's own review in 2003, this standard has cut deaths and injuries from grain dust explosions and fires by 60%. And as noted in the CSB study, the grain industry itself now credits the standard with helping to make the design of grain handling facilities safer.

The CSB study on combustible dust made five specific safety recommendations to OSHA. We called for a comprehensive regulatory standard for dust explosions in general industry, improved training of OSHA inspectors to recognize dust hazards, better communication of dust hazards to workers using Material Safety Data Sheets (MSDSs), and asked OSHA to alert the United Nations Economic Commission for Europe of the need to amend the Globally Harmonized System to address combustible dust hazards.

On an interim basis, while a new standard was being developed, we recommended that OSHA establish a national emphasis program to better enforce existing standards. The Board saw this as only an interim measure because existing standards do not adequately regulate dust hazards.

In response, OSHA indicated that it would evaluate all of the recommendations, and that it was preparing to launch a National Emphasis Program on combustible dust. OSHA publicly announced its emphasis program for dust in October 2007.

We commend OSHA for this positive step.

OSHA's existing requirements—including the general duty clause and the housekeeping standard—apply to combustible dust hazards. However, a specific and comprehensive standard addressing combustible dust would focus both employers' and inspectors' attention on this hazard and the steps that should be taken to prevent dust explosions and fires. And this standard would be more effective in reducing combustible dust explosions and hazards.

OSHA's general housekeeping standard (29 CFR 1910.22) requires that "all places of employment be kept clean and orderly and in a sanitary condition" but does not mention combustible dust or impose any specific enforceable limitations, engineering controls, procedures, or training requirements.

By contrast, the housekeeping requirements of the OSHA grain dust standard (29 CFR 1910.272) are much more prescriptive. The requirements include a formal written housekeeping program with cleaning schedules, identification of priority housekeeping areas where combustible dusts are most likely to be present, a requirement to immediately remove any dust accumulations of more than an eighth of an inch, and a prohibition against using compressed air for cleaning.

However, these requirements only apply in grain handling facilities, not in other industrial establishments.

NFPA 654 likewise contains much more detailed housekeeping provisions than does the OSHA general housekeeping standard.

Absent a comprehensive OSHA standard for combustible dust, no one can be confident that dust hazards will be cited and corrected prior to the occurrence of additional accidents.

In 2003, the CSB investigated three catastrophic dust explosions in North Carolina, Kentucky, and Indiana, that caused a total of 14 deaths and dozens of injuries. All three facilities had longstanding dust hazards.

In all three cases, we found that state OSHA officers had inspected the facilities prior to the accidents, but the dust hazards were never recognized or cited.

Furthermore, the CSB determined that all three explosions could likely have been prevented if the facilities had complied with the good safety and engineering practices contained in NFPA 484 and NFPA 654.

In two of the fatal explosions we investigated in 2003, MSDSs failed to warn workers about the potentially explosive properties of powdered combustible materials. In our 2006 dust study, we examined 141 different MSDSs for known combustible powders and found that less than half contained any form of warning that the material could pose a dust explosion hazard. Only a handful referenced the relevant NFPA standards.

The OSHA standard for hazard communication does not specifically include combustibility of dust among the hazards that require an MSDS, and OSHA provides no guidance for communicating dust explosion hazards.

Therefore, we also made a recommendation to OSHA to amend the hazard communication standard to clearly require MSDSs for materials that are or could form combustible dust during processing or handling.

There are complexities in developing a comprehensive dust standard, but the NFPA standards form a sound and widely respected technical basis for developing a nationwide rule. They include key requirements for hazard assessment, engineering controls, housekeeping, building design, explosion protection, operating procedures, worker training, and the safe design and maintenance of dust collection systems. In addition, the use of industry consensus standards as the basis for regulation is consistent with existing federal policies.

Regular cleaning and removal of accumulated dust, using safe and proper methods—commonly referred to as housekeeping—is important for reducing the likelihood of dust explosions.

In fact, prior to the explosion Imperial Sugar had a regular housekeeping and cleanliness program to maintain food quality and safety and to protect workers from slips and other injuries.

Facilities need to be examining a variety of other steps, such as designing and maintaining their process and dust control equipment to reduce dust releases into the air. Safe design features should be incorporated into buildings where combustible dust is present, such as minimizing horizontal surfaces, sealing off partitions to prevent the spread of dust, and including features to mitigate explosions.

Ignition sources need to be carefully controlled, including not just electrical sources of ignition (which are currently regulated) but also thermal sources of ignition such as ovens, frictionally heated surfaces, and welding and cutting operations.

Equipment should be designed to safely control and vent primary dust explosions—those that can occur inside dust collectors, grinders, and mixers—in order to avert catastrophic secondary dust explosions.

Finally, workers must be made aware of the hazards of combustible dust and trained on safe methods for working in dust environments and for handling and removing dust accumulations.

The NFPA combustible dust codes contain good practice recommendations on all these topics. However, these critical safeguards cannot be required at facilities simply by using existing authorities such as the OSHA general duty clause or the housekeeping standard.

Like other voluntary consensus standards, the NFPA dust codes will need to be carefully reviewed and adapted to create enforceable regulations. That is the purpose of the rulemaking process, in which business, labor, and fire prevention organizations can all participate. It is important that there be sufficient opportunity to assure that a standard is reasonable and appropriate for the wide variety of industries and workplaces in which potential combustible dust hazards may be found.

The time to begin this important work is right away. In the past five years, from 2003 to 2008, we have been notified of ten fatal dust explosions that have caused approximately 32 deaths and 138 injuries. The problem shows no sign of diminishing, and in fact the Imperial accident last month is the deadliest industrial dust explosion in the U.S. since 1980.

The State of Georgia has recognized the urgency of the situation and late last week announced emergency regulations intended to reduce dust explosion hazards. I commend State Fire and Insurance Commissioner John Oxendine and State Fire Marshal Alan Shuman for taking prompt action.

I urge similarly prompt action at the federal level. We need to develop sound federal regulations that businesses can implement and that will protect American workers.

Put simply, a comprehensive dust standard will save lives.

It will also protect U.S. jobs, businesses, and communities that will otherwise be harmed or lost from deadly dust explosions.

Thank you for the opportunity to testify to today.

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Chairman MILLER. Thank you.  
Mr. Foulke?

**STATEMENT OF EDWIN FOULKE, ASSISTANT SECRETARY OF  
LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION**

Mr. FOULKE. Thank you, Mr. Chairman. And I would like to thank you for the opportunity to appear here today to discuss the proposed legislation H.R. 5522, the Combustible Dust Explosion and Fire Protection Act of 2008.

I would like to begin my testimony by expressing my deepest personal condolences to the victims and to the families of those who were killed or injured in the explosion at Imperial Sugar refinery in Port Wentworth, Georgia.

One death in the workplace is one too many. Every employee in OSHA takes the agency's mission very seriously, and they also join me in expressing their condolences to those affected by this tragedy.

When the explosion occurred at Imperial Sugar on February 7th, OSHA responded immediately. A team of highly trained experts from OSHA, along with an outside expert on combustible dust, were on the scene to help ensure the safety and help of first responders, and prevent additional injuries or deaths from occurring.

For example, OSHA compliance personnel conducted air sampling and declared an administrative building off limits when OSHA inspectors found potential flammable vapors caused by sugar fermentation.

While early indications suggest that the Imperial Sugar refinery explosion occurred due to an excessive accumulation of combustible sugar dust, our investigation will determine the cause of the explosion and whether any OSHA standards were violated. If this is the case, I assure you that OSHA will act swiftly to issue citations and impose appropriate penalties.

Combustible dust is a recognized workplace hazard, and OSHA uses a multi-pronged strategy to address this hazard. OSHA already has tough and effective standards and policies on the books that address combustible dust hazards, including the standards—and general requirements for housekeeping, electrical safety, ventilation, hazardous location, hazard communication and emergency action plans.

A list of all 17 OSHA standards that relates to combustible dust is attached to my written statement as Attachment A. If workplaces are in compliance with these standards, accidents from combustible dust can be prevented.

OSHA uses enforcement to ensure these standards are being followed. Last year, OSHA implemented a comprehensive national emphasis program for combustible dust. This proactive measure was based on a regional special emphasis program on combustible dust implemented in 2004. The national emphasis program focuses

on workplaces where combustible dust hazards are likely to be found and discusses activities that can create combustible dust.

Along these lines, and in an effort to provide an even greater emphasis on high hazard facilities, OSHA recently expanded the combustible dust national emphasis program to focus on facilities with a high probability of catastrophic event. Overall, OSHA will conduct approximately 300 combustible dust inspections this year through the national emphasis program.

In addition to combustible dust standards and enforcement, OSHA has undertaken aggressive outreach to the regulated community. We are working to promote their understanding of potential catastrophic impact of combustible dust and inform them of the means to reduce this hazard.

For example, in 2005, OSHA issued a safety and health information bulletin, or SHIB, entitled "Combustible Dust in Industry," preventing and mitigating the effects of fire and explosion. This SHIB was made widely available, and was recently mailed to 30,000 workplaces that are prone to combustible dust hazards.

We also sent out an alert letter to state administrators of occupational safety and health programs run by the 23 states.

OSHA has hosted educational outreach sessions on combustible dust, and OSHA has also disseminated information and education compliance assistance materials related to combustible dust, including interactive Web-based training tools on various occupational safety and health topics.

Further, we recently posted a combustible dust Web page and a combustible dust fact sheet to make it easier to find these guidance materials and other combustible dust resources. OSHA is developing new guidance materials, including a hazard communication alert.

We recognize the need for specialized training in combustible dust. We have provided advanced training for over 350 of our compliance safety officers. This week we conducted a 2-hour refresher course on combustible dust for 700 of our enforcement personnel. We also offer combustible dust as a topic in the Susan Harwood training grant program.

OSHA has taken strong measures on combustible dust. Nevertheless, the agency is carefully considering all options to deal with combustible dust, including rulemaking. OSHA continually evaluates its combustible dust efforts, and the information gathered through its new national emphasis program will be critical to this effort.

The existence of a standard does not ensure that hazards will be eliminated. Many tragic accidents could have been avoided or minimized, if the employers had complied with existing OSHA standards.

We do not yet know whether noncompliance was a factor in the tragedy at Imperial Sugar, and it would be unfair to publicly assert that today. But ultimately, employers are responsible for the safety and health of their employees, and OSHA stands ready to work with all interested parties who are committed to workplace safety.

Thank you, Mr. Chairman, for inviting me here today, and I will be happy to answer any questions you may have.

[The statement of Mr. Foulke follows:]

**Prepared Statement of Hon. Edwin G. Foulke, Jr., Assistant Secretary,  
Occupational Safety and Health Administration**

Mr. Chairman, Members of the Committee: Thank you for the opportunity to appear today to discuss the proposed legislation, H.R. 5522, the "Combustible Dust Explosion and Fire Prevention Act of 2008."

I would like to express my deepest personal condolences to the victims and to the families of those who have been killed or injured in the explosion at the Imperial Sugar refinery in Port Wentworth, Georgia, in early February. Everyone in the Occupational Safety and Health Administration (OSHA) takes the Agency's mission very seriously, and they also join in my condolences to those affected by this tragedy.

We received a copy of the legislation last week, and have begun our analysis of the bill. However, in this short time we have not completed our analysis and cannot provide definitive comments on the proposal. More importantly, we have not finished our investigation of the accident at Imperial Sugar and cannot at this time say that the rule that is being proposed by the legislation would have prevented this tragedy. What I can do is to tell the Committee about our ongoing investigation of the Port Wentworth fire and our overall efforts related to combustible dust hazards.

OSHA's investigation of the explosion, which began within two hours of the accident, is being coordinated by our Savannah Area Office. After learning of the accident, OSHA immediately dispatched two compliance officers to the scene. Several additional compliance officers as well as an attorney from the Department's Regional Solicitor's Office have also participated in this investigation. Six OSHA personnel are on-site working under the supervision of senior staff. An explosives expert from the National Office was sent to the site. In addition, OSHA has retained an outside expert on combustible dust to provide technical assistance. OSHA will inform the Committee of our findings when the investigation is completed.

In the immediate aftermath of the explosion, OSHA worked with the local fire marshal to help ensure the safety and health of first responders (firefighters, ambulance crews, etc.) and prevent additional injuries or deaths from occurring. OSHA helped ensure that all emergency responders used proper safety equipment. OSHA compliance personnel conducted air sampling so that no one on site was exposed to a release of contaminants or toxic substances, such as asbestos. In fact, OSHA declared an administration building "off-limits" when OSHA inspectors found potentially flammable vapors caused by sugar fermentation.

On February 9, the Bureau of Alcohol Tobacco and Firearms (ATF) assumed command of the accident site and a team of investigators from the Chemical Safety Board (CSB) arrived at the site. OSHA negotiated an agreement with all parties to ensure that evidence at the site would be preserved for the investigation. The negotiation also ensured that, before any undamaged portions of the facility are returned to operation and employees allowed to enter, OSHA compliance officers will conduct a thorough inspection so that all known hazards are abated.

The sugar refinery investigation involves three companies with 112 employees on site at the time of the explosion. Early indications suggest that the Imperial Sugar refinery explosion occurred due to an excessive accumulation of combustible sugar dust. OSHA is attempting to determine the ignition source that led to the explosion, and whether any OSHA standards were violated. If that is the case, the Agency will issue citations and propose appropriate penalties.

Now I will discuss OSHA's overall efforts concerning combustible dust hazards. OSHA has recognized these hazards for many years, and has been implementing various initiatives and standards to deal with the problem. It is important to point out that OSHA already has tough standards on the books that address combustible dust hazards such as the standards covering general requirements for housekeeping, emergency action plans, ventilation, hazardous locations, and hazard communication.

For example, the most important standard for grain elevators and similar facilities is our Grain Handling Standard, which includes requirements for housekeeping, ventilation, electrical safety, hazard assessment, employee training and other requirements. OSHA's Ventilation Standard also applies in some situations outside grain facilities. If the facility's operations are covered by 29 CFR 1910.94, Ventilation, the facility operator is required to follow the standards requirements on abrasive blasting; grinding, polishing, and buffing operations.

OSHA's housekeeping requirements apply to hazardous surface dust accumulations (i.e., dust accumulations outside the dust collection system or other containers, such as mixers.) For example, dust accumulations exceeding 1/32-inch covering an area of at least 5% of the total area of the room with an upper limit of 1000 square feet and determined by laboratory analysis to be combustible are subject to OSHA's



housekeeping standard. In general, the housekeeping standard requires that “all places of employment, passageways \* \* \* and service rooms shall be kept clean \* \* \* and the floor of every workroom shall be maintained in a clean \* \* \* condition.” OSHA housekeeping requirements also apply to storage areas and in facilities like power plants that handle coal. OSHA’s Process Safety Management standard can apply if the dust in question appears on the list of Highly Hazardous Chemicals (Appendix A to 29 CFR 1910.119) and is present in quantities greater than or equal to the threshold for PSM requirements. If laboratory analysis of dust collected by an OSHA inspector indicates that the dust meets certain combustibility requirements, standards related to electrical safety will apply. Where Powered Industrial Trucks are used OSHA standards at 29 CFR 1910.178(c)(2)(ii) and (vi)-(ix) and 1910.178(m)(11). These include safety requirements for fire protection, design, maintenance and use of a variety of power trucks including their suitability for hazardous combustible dust locations.

The hazard communication standard, 29 CFR 1910.1200, requires all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. The definition of physical hazards includes flammable solids (see the definition in 1910.1200(c)), which in the course of normal conditions of use could become combustible dusts.

OSHA requirements for provision of adequate means of egress as well as general OSHA fire protection requirements may also apply, as will OSHA standards related to bakery equipment (hazards in sugar and spice pulverizers); and sawmills (in connection with defects in the design, construction, and maintenance of blower collecting and exhaust systems).

Of the standards outlined above, the most important is housekeeping. When dust is not allowed to accumulate, the chances for a combustible dust explosion are vastly reduced.

While OSHA has a number of standards and policies on combustible dust, we understand that employers may not be aware of the hazard and OSHA’s policies. Therefore, OSHA has provided outreach to our stakeholders as well. OSHA Area and Regional offices conduct outreach sessions on many topics, including combustible dust hazards. OSHA has also reached out to the fire safety profession, as well as our state plan enforcement and consultation partners. State plan and consultation staff have then taken various efforts to reach out to employers and employees within their states.

In 2005, OSHA issued a Safety and Health Information Bulletin, or SHIB, titled Combustible Dust in Industry: Preventing and Mitigating the Effects of Fire and Explosions. This comprehensive guidance highlights the hazards associated with combustible dusts; the work practices and engineering controls that reduce the potential for a dust explosion or that reduce the danger to employees if such an explosion should occur; and the training needed to protect employees from these hazards.

In light of the tragedy in Savannah, I recently sent a letter, along with a copy of OSHA’s Combustible Dust SHIB, to an estimated 30,000 employers across the country in industries where combustible dusts are commonly found. In this letter I urged employers to review the information and reminded them of their responsibilities to prevent combustible dust hazards to help prevent future tragedies. I also reminded them of the assistance OSHA’s onsite Consultation Program can provide confidentially and free of charge.

The Agency also implemented several proactive measures related to enforcement. OSHA has implemented a major enforcement initiative by developing a comprehensive National Emphasis Program (NEP) for Combustible Dust that took effect on October 18, 2007. The NEP is based on OSHA’s expertise and experience in identifying and mitigating combustible dust hazards, as well as a regional Special Emphasis Program (SEP) on combustible dust implemented in 2004. It focuses on workplaces where combustible dust hazards are likely to be found and lists the different types of materials that can lead to combustible dust. Industries covered by the NEP include agriculture, food processing (including sugar), chemicals, textiles, forest products, metal processing, tire and rubber manufacturing, paper products, pharmaceuticals, recycling operations and coal handling and processing facilities. These industries deal with a wide range of combustible dusts with differing properties including metal dusts such as aluminum and magnesium, wood dust, coal and carbon dust, plastic dusts, biosolids, certain textile materials and organic dusts such as paper, soap, dried blood and sugar.

In particular, our inspectors are to look for violations of our existing standards on dust accumulations and sources of ignition, which are basic ingredients of a combustible dust explosion.

As of last week, OSHA had conducted 51 inspections under the National Emphasis Program. These inspections have resulted in findings of 109 violations of existing standards known to mitigate combustible dust hazards. In addition to the standards I mentioned earlier, these also include a standard covering powered industrial trucks. In most combustible dust accident investigations, we have found that if employers had followed the applicable standards, they would have mitigated these hazards and prevented the explosions. OSHA has recently expanded the Combustible Dust NEP, and as a result, the Agency is planning to conduct at least 300 inspections this year. Moreover, refinements and improvements to the expanded NEP have resulted in a special concentration on the industries with a high probability of high-consequence combustible dust explosions.

Over the last three years, OSHA has placed a greater emphasis on training our compliance officers on combustible dust hazards by providing specialized training to several hundred inspectors. The OSHA Training Institute has developed a comprehensive three and one-half day course on Combustible Dust Hazards and Controls, which it began offering last December. OSHA has also provided training on combustible dust hazards to our state enforcement and consultation program partners.

OSHA has also disseminated other compliance assistance materials related to combustible dusts, including three different eTools found on our public website. These eTools are “stand-alone,” interactive, web-based training tools on various occupational safety and health topics. They are highly illustrated and utilize graphical menus. OSHA has eTools on woodworking, sawmills and shipbuilding, all of which have components that address combustible dust hazards. OSHA disseminates an 80-page publication, available on the website, entitled Guide for Protecting Workers from Woodworking Hazards that has a section that also addresses dust hazards. In 1998, OSHA released a Hazard Information Bulletin dealing with dust explosion hazards in the textile industry.

Last week, we posted a combustible dust web page to make it easier to find these guidance materials and other helpful resources. We are also in the process of developing new guidance materials including a hazard communication alert and a combustible dust fact sheet.

I know you are familiar with the U.S. Chemical Safety and Hazard Investigation Board’s (CSB) November 2006 report dealing with combustible dust hazards. The CSB report made five recommendations to OSHA. First, CSB recommended that OSHA establish a National Emphasis Program focused on combustible dust. We initiated a Special Emphasis Program on combustible dust in 2004 which we expanded into a National Emphasis Program in October 2007. Second, CSB recommended that we offer training through the OSHA Training Institute on recognition of combustible dust hazards and preventions of explosions. We have been offering such training for several years, and recently expanded that training with a special 3½ day course. CSB also recommended that OSHA revise its hazard communication requirements to address combustible dust. The results of our NEP have indicated the need to clarify that HazComm requirements also cover combustible dusts, and we have begun work on appropriate guidance to communicate this to employers.

CSB recommended that we recommend to the United Nations that the Globally Harmonized System hazard communication agreement awaiting international ratification be modified to address combustible dust hazards. It is the U.S. position at the United Nations Subcommittee of Experts on the GHS that changing the GHS during the implementation process could cause confusion and complicate compliance efforts by creating a “moving target” for those who are attempting to evaluate or comply with new regulatory requirements. GHS does not define combustible dust, but does address these hazards by requiring they be identified on safety data sheets. Furthermore, current GHS coverage of combustible dust does not conflict with current OSHA policy and practice. For these reasons, OSHA does not intend to inform the United Nations of a need to amend the GHS to include additional criteria for combustible dust hazards at this time, but we may do so later.

Lastly, CSB recommended OSHA issue a combustible dust standard. Let me be clear that we have a number of standards that apply to situations where combustible dust hazards may be found. Again, these include standards that cover general requirements for housekeeping, emergency action plans, ventilation, hazardous locations, and hazard communication. If employers follow the existing requirements established by these standards, employees will be protected from combustible dust hazards. If our investigation of the Imperial Sugar accident or our forthcoming inspections indicates that our existing standards do not adequately mitigate the potential for combustible dust hazards, we will assess the need for regulatory changes.

We believe that the Agency has taken strong measures to prevent combustible dust hazards, and that our multi-pronged approach, which includes effective en-

forcement of existing standards, combined with education for employers and employees, is effective in addressing combustible dust hazards. We would like to emphasize that the existence of a standard does not ensure that explosions will be eliminated. The effectiveness of a standard always depends on how well employers implement the requirements, and many tragic accidents in the last decade could have been avoided or minimized if employers had complied with existing OSHA standards. Secondary dust explosions resulting from excessive dust accumulations resulted in many of the casualties in recent catastrophic events.

Nonetheless, the Agency is carefully considering all options to deal with combustible dusts, including rulemaking. While we are still conducting a full analysis of the proposed legislation, we are continually evaluating our current combustible dust efforts, and are eager to learn how effective our new National Emphasis Program will be.

Let me reiterate that we are saddened by the tragic loss of life that resulted from the Imperial Sugar explosion. We will not rest until we ensure that all employees go home safely to their families and friends at the end of every work day.

Thank you Mr. Chairman. I would be happy to answer any questions.

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Chairman MILLER. Thank you.

Ms. Miser?

#### STATEMENT OF TAMMY MISER, HUNTINGTON, IN

Ms. MISER. Thank you for inviting me here today to testify. And I would like to start on the night of October 28, 2003.

This is the night of the aluminum dust explosion at Hayes Lemmerz International, Huntington, Indiana.

My brother, Shawn Boone, and two coworkers went in to relight a chip melt furnace, and they decided to stick around a few minutes, just to make sure that everything was okay. And Shawn's back was towards the furnace when they were picking up their tools, and there was a blast.

Some say Shawn got up and started walking towards the door, and then there was a second, more intense blast.

Shawn did not die instantly. He laid on the building floor while the aluminum dust burnt through his flesh and muscle tissue. The breaths that he took burnt his internal organs, and the blast took his eyesight.

Shawn was still conscious and asking for help.

Hayes never bothered to call the family and let us know that Shawn was injured or that there was any kind of explosion at all. We received a call from a friend of my husband Mark's. And he told us that Shawn was on his way to Fort Wayne.

When Mark reached the hospital where they had all been transferred, she asked if Shawn was there. Well, they had an unidentified white male there, so nobody had even bothered to identify who my brother was. The only way he was identified by his apparent body weight and structure, because he had no body hair and no physical markings to identify.

We drove 5 hours that night, hoping and praying it was not my brother.

This still brings about guilt, because I would not wish this on anybody.

We arrived, and the on site pastor told us to prepare ourselves, because he had not seen anything like that since the war. And the doctors told us that they were not going to bandage him. They refused to treat it, because they said that, even if they took his limbs,

his internal organs were burned beyond repair. And that was pretty apparent by the black sludge they were pumping out of his body.

I went in to see my brother, and maybe somebody that did not know him would not recognize him, but he still had some remnants of his eyebrows—his red eyebrows—and he also had the same face. It was splitting and a little swollen, but he was still my Bub.

Our family immediately started talking about taking him off of life support, and if we agreed to do this, we had ultimately given up on my brother. It would mean that we were taking his last breath.

And even though we were not to blame, we were still making that decision. And we did. We watched the machines stopped, and we watched my brother die before our eyes. We watched him take his last breath.

And the two things that I can always remember, and it never leaves, are his last words—"I am in a world of hurt"—and his last breath.

I truly feel for these families at the Imperial Sugar plant. All of them have had horrible injuries and deaths, because I know where they are. And I know where they have been and I know where they are going.

I am really disgusted and hurt. It is the same hurt I felt when my brother was killed, because this information was out there, and it could have saved him. And it could have saved these people at the Imperial Sugar plant.

Everybody knows what caused this explosion. And it would have been nice to prevent it. We know it is feasible, and it is beyond negligent to expect companies to do this on a voluntary basis.

I really strongly believe in OSHA, and I believe it is necessary, but only if it is working. And I felt in this case it has failed, and it has really failed miserably. Not only have they failed these families, but the previous ones.

I followed the Chemical Board study, and I came up for that hearing. And I was really excited, because I really thought, with them giving recommendations, something would be done. I thought, finally, something would be done.

But the only thing that did result in that was a bulletin on combustible dust. And at the very beginning, the first things that it says, it says, "this safety and health information bulletin is not a standard or a regulation. It creates no legal obligations."

And I do not see how this can be expected to be taken seriously, when they are sitting there telling them, right off the bat, that there is really no legal obligation for this.

I remain hurt and angry at the lack of compassion by the corporations and OSHA, because no matter how much time goes by, the pain never goes away. It never fades, and the incident never dies. Our losses are lifelong, needless sentences because a few people could not or would not do what was right.

And in conclusion, I would ask you to please support this bill for combustible dust. Thank you.

[The statement of Ms. Miser follows:]

### Prepared Statement of Tammy Miser

Congressman Miller, Ranking Member McKeon, I would like to thank you for inviting me to testify on the Combustible Dust and Fire Protection Act of 2008.

I will start on October 28 2003, the night of the aluminum dust explosion at Hayes Lemmerz in Huntington, Indiana.

My brother Shawn Boone and a couple coworkers went in to relight a chip melt furnace Shawn and his coworkers decided to stick around a few minutes to make sure everything was ok and then went back to gather tools. Shawn's back was toward the furnace when the first explosion occurred. Someone stated that Shawn got up and started walking toward the doors when there was a second and more intense blast. The heat from that blast was hot enough to melt copper piping.

Shawn did not die instantly. He laid on floor smoldering while the aluminum dust continued to burn through his flesh and muscle tissue. The breaths that he took burned his internal organs and the blast took his eyesight. Shawn was still conscious and asking for help when the ambulance took him.

Hayes Lemmerz never bothered to call any of my family members to let them know that there was an explosion, or that Shawn was injured. The only call we received was from a friend of my husband, Mark, who told them that Shawn was in route to a Ft. Wayne burn unit.

When Mark asked the hospital where Shawn was we found that no one even bothered to identify him. We were told that there was a "white, unidentified male" admitted to the unit. When Mark tried to describe Shawn, the nurse stopped him to say that there was an unidentified male with no body hair and no physical markings to identify. So my Shawn was ultimately identified only by his body weight and type.

We drove five hours wondering if it really was Shawn, hoping and praying that it wasn't. This still brings about guilt because I would not wish this on anyone else. We arrived only to be told that Shawn was being kept alive for us. The on site pastor stopped us and told us to prepare ourselves, adding he had not seen anything like this since the war. The doctors refused to treat Shawn, saying even if they took his limbs, his internal organs were burned beyond repair. This was apparent by the black sludge they were pumping from his body.

I went in to see my brother. Maybe someone who didn't know Shawn wouldn't recognize him, but he was still my brother and you can't spend a lifetime with someone and not know who they are. Shawn's face had been cleaned up and it was still very swollen and splitting, but he was still my Bub.

The family immediately started talking about taking Shawn off of life support. If we did all agree, I would have ultimately given up on Shawn, I would have taken his last breath, even if there was no hope and we weren't to blame. I still had to make that decision. Watch them stop the machines and watch my little brother die before my eyes.

But we did take him off and we did stay to see his last breath. The two things I remember most are Shawn's last words, "I'm in a world of hurt."

And his last breath.

I truly feel for the Imperial Sugar Plant families that have horrible injuries and who have had deaths. I know where they are, where they have been and where they are going and I am truly disgusted and, to be honest, hurt. It is the same hurt I felt after the loss of my brother, because I knew the knowledge was there that could have prevented this and saved him.

Everyone already knows what caused the explosion at the Imperial Sugar plant. But it would have been nice to prevent this from happening in the first place. We know that it's feasible to prevent these explosions. And it is beyond negligent to expect a company that knows about these hazards to voluntarily comply, instead of making it a requirement.

I believe strongly that OSHA is a necessity, but only if it is working. In this case it has failed and failed miserably. Not only have they failed these families but also the families that had lost loved ones in the dust explosions of 2003 that the CSB studied. Like many of those families, I closely followed the CSB's investigation of the explosion that killed Shawn and the CSB's dust study. I came to Washington to testify at the CSB hearing and was very happy when the CSB issued its recommendations to OSHA.

Finally, I thought, something would get done.

But there has been no response from OSHA. In essence, the heads of OSHA have told the families that their loved ones' lives were not worth developing a standard, even when most of the work had been done by the CSB and by the NFPA.

OSHA put out a bulletin on combustible dust, but at the very beginning it says "This Safety and Health Information Bulletin is not a standard or regulation, and

it creates no new legal obligations.” How seriously do you think companies will take it?

I remain hurt and angry at the lack of compassion and concern by the corporations and OSHA. You see no matter how much time goes by, the pain Never Goes Away. It never fades; the incident and the aftermath never dies! Our losses are lifelong, needless sentences because a few people couldn’t or wouldn’t do what was right.

I took my grief and my anger and created an organization called United Support & Memorial For Workplace Fatalities. It’s a place for families to mourn the needless loss of their loved ones and a place to fight to make sure it doesn’t happen to any other families like the families in Savannah. That’s how I get through, that’s how I continue to remind myself it was the right decision. That is also why I plan to keep in this fight until there is some safe haven for others working around combustible dust.

In conclusion I would ask that you please take in to consideration what these incidents do to families, coworkers and communities, that you not let our loved ones die in vain and help us keep other families safe from the dangers of combustible dust. Please support the combustible dust bill.

Thank you.

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Chairman MILLER. Thank you for your testimony. Appreciate how, I think all of us can, how difficult it is for you.

Mr. Sarvadi?

**STATEMENT OF DAVID SARVADI, ATTORNEY, U.S. CHAMBER OF COMMERCE**

Mr. SARVADI. Thank you, Mr. Chairman.

These kinds of hearings are always difficult for all the participants. And I want to express my personal condolences to Ms. Miser, and to the people in Fort Wentworth who suffered this tragedy.

I have been around situations like this before. It affects not just the families, but the friends, neighbors and communities. And I want to support what Mr. Barrow said this morning. This tragedy in Fort Wentworth, as the tragedy Ms. Miser suffered, is going to affect a lot of people for a long time.

I want to thank the committee for inviting me to participate, and for holding this hearing. I am here to represent the Chamber of Commerce, and to provide some insight from our perspective on the proposed legislation.

I want to say at the outset that I have submitted a written statement to the record, and I hope that will be introduced. And I will just make a few remarks here as we talk about this problem.

I have been doing industrial hygiene and occupational safety and health for nearly 35 years. One of my earliest positions was in a company where we actually had to deal with combustible dusts, flammable liquid, an enormous array of occupational hazards in the workplace.

And I can tell you that that experience leaves me humble every time I see an incident like this. And the reason I am humble about it is because I am not always sure I understand exactly what happened.

One of the things that I did in preparing for the testimony was, I went back and looked at the CSB’s report on the case in North Carolina, the West Pharmaceutical case. And what struck me about that particular report was the fact that a lot of the things

that we are talking about in the NFPA standard were actually done.

The engineers had paid attention to some of these issues. They had thought about them. They had had planning meetings about the kinds of things that they were going to be doing, what kinds of hazards they can encounter.

I am not suggesting that they were infallible. It is obvious that they were not.

But what makes me humble about these things is the fact that, not only the engineers, but everybody who appeared at that West Pharmaceutical plant, missed the question of what was going on above the ceiling in that facility.

And I will tell you straightforwardly, I expect I would have missed it as well. And I have looked at these kinds of problems for many, many years.

Without getting into any great detail—I can certainly talk about this at length—but I can tell you that, given the way that the plant was designed, given the materials that were involved, I do not think it was knowable in advance that this dust would accumulate above the ceiling, because of the nature of the chemicals that were involved, and the nature of the processes.

And that is one of the difficulties that we have. People are fallible. They make mistakes.

The one common theme that I have heard so far from the previous three speakers, and also from Mr. Barrow and Mr. Kingston this morning, is that we know how, in many cases, to prevent these accidents. What the problem seems to be is that the people who are actually involved—the employers and employees involved in these facilities—do not have the information.

And the one real serious deficiency that I see in regard to solving the problem in the future, is that we have not done an adequate job, and have not even begun talking about, how do we get that information into the hands of the people that need it, and make it effective?

I want you to understand, business is not opposed to having standards. Standards give us guidance. Standards give us certainty. We understand then what our obligations are when the standards are clear and unambiguous.

The problem with the NFPA standards is that they are often more ambiguous in certain aspects than we would like them to be. They make it difficult not only for employers to comply, but for the agencies to enforce them.

So, it is really important to spend the time in transferring a standard from a voluntary compliance program like NFPA to a mandatory standard that would be enforced through the force of law, not because we want to water down the standard or change it, but to make sure that it gives clear instructions and clear understanding to everybody involved.

So, we know that the information is present and it is available. The question is, are we going to use it? And I can tell you that the Chamber and the people that I work with, the employers that I work with, are committed to making these standards work, and to work with OSHA to come up with standards that are effective, and

will do so, hopefully, in a process that OSHA adopts once the process of investigation in Savannah is completed.

Thank you, Mr. Chairman, for your time and attention.

[The statement of Mr. Sarvadi follows:]

**Prepared Statement of David G. Sarvadi, Esq., Keller and Heckman, LLP,  
on Behalf of the U.S. Chamber of Commerce**

Good morning. Mr. Chairman, Members of the Committee, and invited guests, thank you for the opportunity to participate in this important proceeding.

My name is David Sarvadi. I am an attorney with the Washington, D.C., law firm of Keller and Heckman LLP, and my purpose is to provide you with some insights on H.R. 5522 from the perspective of someone who has managed combustible dust issues in a manufacturing environment and has extensive experience with OSHA rulemaking and enforcement activities. I will also offer some suggestions on how I believe the bill could be improved.

My own training and education includes a Master's of Science Degree in Hygiene from the department of Occupational Health at the University of Pittsburgh's Graduate School of Public Health, so I started life as a budding scientist. I received a law degree from George Mason University in 1986, and have been a certified industrial hygienist since 1978. I joined Keller and Heckman LLP in 1990. Early in my career I worked at a company that actually had to deal with combustible dust hazards, and I am generally familiar with the methods of control, although by no means an expert on the topic.

I joined Keller and Heckman in 1990. At Keller and Heckman LLP, we represent and assist employers in meeting their obligations under a variety of federal and state laws, as well as international treaties and the laws of Canada, Europe, and many countries of the Far East. In particular, we help clients maintain progressive health and safety programs intended to protect their employees in their workplaces, as well as to comply with national and international health and safety laws and standards. The Occupational Safety and Health Act is the primary focus of our compliance assistance here in the U.S.

I am appearing in this hearing on behalf of the U.S. Chamber of Commerce. Any views expressed herein should not be attributed to my firm, my partners, or any other entities, including any of our clients. I am here as a member of the Chamber's committee with responsibility for occupational safety and health matters, and as a person with a long standing interest in the topic of occupational safety and health. I have practiced industrial hygiene and occupational health and safety law now for more than 35 years.

The primary issues before us are whether the Occupational Safety and Health Administration (OSHA) should be directed to adopt a standard to address the hazards of so-called "combustible dusts," and, if so, what direction or guidance should be provided to OSHA in proceeding to develop and adopt such a rule. Recent accidents, including the tragic explosion at the Imperial Sugar plant near Savannah, re-emphasize the importance of vigilance on safety and health matters. There is no question that there are significant hazards associated with processing dry materials that have the capacity to burn. But there is also no question that both the hazards and methods for controlling them have been recognized for a long time.

I want to commend OSHA for one thing. I have reviewed its safety and health bulletin on combustible dust and it is excellent. It covers in understandable terms the kinds of considerations that come into play when combustible dusts are present, and highlights both OSHA and voluntary standards that are applicable in various circumstances. Importantly, it lists not only voluntary National Fire Protection Association (NFPA) standards that apply, but also OSHA standards as well. It is important to remember that the general housekeeping standard, the electrical standard, and others have specific requirements that apply to workplaces where combustible dusts are present.

OSHA has also initiated a National Emphasis Program (NEP) of inspections designed to ensure that employers are following the applicable OSHA standards and generally recognized practices in this area. Actions are being taken to raise the level of awareness to issues of combustible dust, led by OSHA, and there are existing solutions that are being used right now.

It is also important to remember that the primary external oversight of combustible dust hazards is provided by the loss control representatives of the employer's insurance carrier, the local building inspectors and the local fire department, all of which are likely to visit sites with combustible dust issues far more often than OSHA compliance personnel.



Employers and employees have a mutual interest in safe operations. When a tragedy occurs, it is the family, friends, and neighbors of the people in the workplace who are injured and affected. Even if no injuries occur, an accident disrupts lives and the livelihood of all employees of the organizations in which they occur. So there is a substantial and continuing incentive to take all reasonable steps to mitigate hazards.

For most employers, OSHA standards provide a floor for their compliance programs. Employers prefer certainty as to their obligations, and clear and unambiguous standards, reasonably interpreted and enforced, are welcome. Indeed, in the great tradition of the American way, citizens have joined together since our country's earliest beginnings to work together to improve our common good.

Standards are an important lubricant of commerce in the U.S. The earliest days of the industrial revolution in the U.S. highlighted the difficulty encountered when competing organizations used different designs for things like railroads. Only when standard gauge track and equipment came into common use did the railroads really begin to prosper. Thus, the use of consensus standards to facilitate commerce is not only generally acceptable, but history shows the importance of sharing information and approaches to problems.

As organizations grow, bureaucracies develop, and the implementation of standards depends more and more on the development of paper trails. To the extent that such bureaucratic activities detract from the primary activity, it will be damaging rather than enhancing to the objectives being sought. In that regard, broad record-keeping requirements that do not have a direct relationship to safety and health should be minimized. As one of my clients says, when looking at all the record-keeping requirements they have compared to what they actually find useful, "not everything we count counts." Adoption of OSHA standards should take this balancing of interests into account.

#### *The Proposed Bill*

Given the recent publication of the OSHA bulletin, the recently initiated OSHA NEP inspections, the prominent role of insurance carriers, building inspectors and local fire department officials, and the invigorating impact of these developments on their collective efforts, some would suggest waiting to assess the impact of those collective efforts whether there is a need for an OSHA standard in this area. For others, that approach may not be satisfactory.

In no way do I mean to make light of the tragic dust explosions that have occurred. Dust explosions have occurred in industry for many years, and what we do not know is whether these recent cases reflect random events as the rate declines because of improvements in equipment and technology, or whether the number of events is occurring at an increasing rate, or at least is not declining. This is a question that should be answered, because it may tell us that what we believe works in fact is not as effective as we would like.

A properly developed standard may be appropriate. However, as tragic as these events have been, the situation is not one that calls for the rushed adoption of an emergency temporary standard. Such a rush to judgment fails to provide the time needed to determine what measures should be required.

OSHA has explicitly recognized the fundamental problems presented by adopting national "consensus" standards as regulatory standards (55 Fed. Reg. 47660, November 14, 1990):

The organizations which produce consensus standards expect that compliance will be voluntary, based on agreement among interested parties regarding the need for particular precautions. It is implicit that the primary concern of the standard-producing organizations is to improve the overall safety of a workplace by fostering compliance with the spirit, rather than the letter, of the consensus standards. On the other hand, OSHA standards, including those adopted from consensus standards, impose mandatory burdens, because of the Agency's statutory duty to require protection of employee safety and health.

For example, NFPA 654 uses the word "should" 113 times, and would have to determine whether to change the "should" to a "shall" or delete the associated provision from any proposed rule.

Furthermore, the latest edition of NFPA 654 was adopted in 2006. The introduction notes that new explosion technologies were adopted in the 1994 and 1997 editions of that standard. They cannot simply be applied, without grandfathering provisions, to every building that was constructed or modified over the last century. Some accommodation needs to be made for facilities or processes that were built or modified in accordance with local approvals issued under the then applicable building codes. NFPA 654-2006 specifically addresses the issue of prospective v. retroactive application and provides as follows:

### 1.5 Retroactivity.

The provisions of this standard reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued.

1.5.1 Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of the standard. Where specified, the provisions of this standard shall be retroactive.

1.5.2 In those cases where the authority having jurisdiction determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of this standard deemed appropriate.

1.5.3 The retroactive requirements of this standard shall be permitted to be modified if their application clearly would be impractical in the judgment of the authority having jurisdiction, and only where it is clearly evident that a reasonable degree of safety is provided.

It is important to note that the proposed legislation does not really address combustible dust hazards, but would have OSHA adopt general principles similar to the other process based standards. This approach, which was derived from standards developed by the military during World War II and through the decades since, take a systematic approach to evaluation of processes, hazards, and consequences of failure. No one doubts that some form of this kind of analysis is important in many circumstances, but it is the level of detail that is applied in any individual case that is the detail in this case where the devil is lurking. The proposed language would apply "in any . . . industry in which combustible dust presents a hazard. . . ." This phrase is preceded by a list of processes, industries, and products that presumably would be covered. Unfortunately, the language used fails because of the ambiguity inherent in such broad terminology. In the way it is phrased, it is circular. A facility using combustible dust is covered if the combustible dust is a hazard. As a lawyer, such language is encouraging because it inevitably leads to litigation over what it actually means.

I take issue with the proposed language that somehow Material Safety Data Sheets (MSDS) "often" do not adequately address combustible dust hazards. I am not sure what is meant by this statement. It appears to have been based on a statement in Combustible Dust Report issued by the Chemical Safety Board to the effect that the MSDS for combustible dusts were "inadequate." The intent of the OSHA Hazard Communication Standard was to require chemical manufacturers and suppliers to communicate the inherent health hazards and physical hazards, such as the hazard of a dust explosion, to downstream customers. Its purpose was not to require chemical manufacturers and suppliers to determine how each ultimate user would use the product and to specify the design of the user's equipment, processes, and facilities, and other measures that might be needed to control that hazard.

It is important to remember that the MSDS conveys information about the chemical it covers, and that it is the responsibility under the Hazard Communication Standard (HCS) of the employer whose employees use the chemical to take that information and apply it to their workplace. It is not the job of the MSDS, nor in my humble opinion can it be, to educate the employer-customer about the panoply of requirements that may be attendant to adequately controlling hazards presented by chemicals. Stated differently, if we believe employees or employers are not reading current MSDSs what makes any of us here think they will read longer more comprehensive ones. Part of the job of a safety program in the context of the HCS is to consolidate requirements and knowledge into usable and memorable information for managers and employees. In this sense, the CSB report misinterprets the intention and purpose of the MSDS in the HCS scheme.

### *These Hazards Are Well Known*

Combustible dust explosion and fire hazards have long been recognized. The US Bureau of Mines has long conducted research on explosive and combustible dusts, and NFPA standards and industry safety guidelines go back to the same period, but continue to evolve. There are 21 from NFPA alone listed by OSHA in its bulletin. A textbook I have on the subject of industrial hygiene has an entire 30-page chapter on the topic, published in 1963.

The fact that there is so much information on the topic suggests that it is not a lack of information that is important, but a lack of knowledge about the information, even about its existence. Getting information into a form that is easily accessible and usable is a critical and perhaps missing step. With the Internet, we can access huge amounts of data, but we get no usable information until a person applies intelligence and organizes it. Perhaps the appropriate approach should be to

provide some money for educating employers and employees about the hazards of combustible dusts, particularly unusual situations like some of the ones described in the CSB report, and developing some of these consolidated information sources. See OSHA's bulletin.

#### *Voluntary Standards and Rulemaking*

Some will suggest that OSHA should simply adopt the voluntary standards that exist. To the extent that the standards reflect actual consensus about a particular topic, those sections that are mandatory can be useful in preparing regulatory provisions. Nevertheless, they need to be reviewed in an open process by OSHA because they are not always free of bias and may not represent true consensus among affected parties. I previously testified in 2006 at a subcommittee hearing on this issue. Congress assumed that consensus standards were the process of an open and transparent process. When they are, the standards do represent the best practices of the affected parties. But when the standards are contentious, it is more often the case that one or another group has managed to impose its will, with the result that the process in which the standard was adopted is not the equivalent of the mandatory notice and comment proceeding that is typically required for government standards.

Following normal rulemaking procedures is important from another perspective. To the extent that people feel they have been fairly heard, and the decision is made on the basis of objective technical criteria, they are more likely to accept it. We need such acceptance because we need voluntary compliance with these requirements to ensure true safety in the workplace. It will do no good to impose standards that in the end lead to more disputes and contention because, again, it will distract from the principal objective.

Thus, we believe that it is imperative to recognize that a process longer than 90 days will be needed for OSHA to even adopt an interim standard. The process is inherently longer the more complicated the issue. Our experience of late is replete with unintended consequences of well-meaning but misguided action, particularly on the part of government. Short-circuiting the process by mandating changes within such short time frames will lead to more unintended consequences.

An example will help. Suppose such a standard is adopted, and that it is determined that one of the NFPA standards should become mandatory. Normally, standards are forward-looking, and one critical aspect that is fleshed out in the rule-making process is what to do about existing installations. Should they be upgraded? How long will employers be allowed to bring facilities into compliance? Should existing designs be grandfathered? How far back should such a grandfather period go? I would suggest that these questions need to be answered before a comprehensive standard is imposed on a broad and ambiguous group of employers and employees.

It is simply wrong to suggest that OSHA can reasonably adopt the NFPA standards within 90 days. The NFPA standard 654, for example, is complex, on the one hand containing detailed technical specifications for the performance of critical process equipment and components, and on the other hand, including programmatic requirements such as those contemplated in the proposed legislation. Adopting this kind of standard without the normal array of feasibility and other analyses through an accelerated process is a recipe for difficulty if not disaster.

The complexity of the NFPA standards also suggests that having standards adopted through the legislative process is not a good idea. NFPA standards, including NFPA 654, are staffed with experts with many years of experience, most of whom are engineers. Engineers are trained in assessing the competing demands that are inherent in any design process, making decisions and trade-offs that are informed by engineering judgment to achieve what are hopefully optimum results. The expedited standard adoption process contemplated by the bill would deprive interested and affected parties the opportunity to be heard, and would result in the imposition of a standard likely to be less effective.

#### *The CSB Reports*

The CSB summary report contains a chart showing an increasing number of events since 1980. CSB suggests that the data are unclear as to their real implication because they may be incomplete. Is this not an important question to answer before embarking on a wholesale regulatory change that has the potential to impact a very large segment of our economy? I believe it is.

I also believe that the lack of a recommendation on training and education in light of conclusions that management as well as employees were unaware of combustible dust hazards in most of the cases described is striking. A national emphasis program incorporating an education and outreach element would seem to be in order. OSHA has had considerable success in its efforts to work with employer groups to get information and training in the hands of those who need it. Given the

scope that CSB suggests exists, it would seem more urgent to provide training and education than to impose an untested standard on the economy.

Education plays an important role in enforcement as well. Compliance with voluntary standards often enforced by local officials, but the uneven skill set possessed by not only local officials but also by OSHA inspectors suggests that training for inspectors and enforcement agencies is also important.

#### *Conclusion*

Combustible dust hazards are real and well recognized. With the extensive knowledge base and existing OSHA standards, it is not yet clear that a combustible dust-specific standard would improve overall safety performance with respect to this hazard or even employer safety practices. If such a standard is to be issued, it must be done as part of traditional rulemaking with full opportunity for those affected by it to participate in its development and with all appropriate analyses and reviews included.

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Chairman MILLER. Thank you.  
Ms. Spencer?

#### **STATEMENT OF AMY SPENCER, SENIOR CHEMICAL ENGINEER, NATIONAL FIRE PROTECTION ASSOCIATION**

Ms. SPENCER. Thank you. Good morning, Chairman Miller.

I appreciate the opportunity to speak to you about the Combustible Dust Explosion and Fire Prevention Act of 2008. My voice is not very strong this morning. I am on the tail end of a cold, but I hope my message will be strong.

I am Amy Beasley Spencer, a senior chemical engineer, representing the National Fire Protection Association, NFPA, and have worked at the association for 12 years. I serve as the staff liaison to several NFPA technical committees responsible for documents dealing specifically with hazard recognition and control of dust hazard processes.

NFPA support the Combustible Dust Explosion and Fire Prevention Act of 2008, and believe that OSHA should develop a mandatory standard to address and mitigate dust hazards by incorporating by reference the relevant NFPA codes and standards.

Today, I will provide a brief background of NFPA, a description of the relevant codes and standards that address dust hazard processes, and conclude with a discussion on how I believe these documents could provide a safe and effective strategy for identifying and controlling processes that store, handle or use combustible dust or other combustible particulate solids.

NFPA is an international membership organization that develops voluntary consensus codes and standards that are adopted by state and local jurisdictions throughout the U.S. and the rest of the world. The NFPA consensus process and the periodic revisions of all documents ensure state-of-the-art practices and safeguards are included.

NFPA has more than 250 committees made up of about 4,000 experts, who represent diverse interests such as enforcers, users, consumers, manufacturers, designers, researchers, insurance and labor.

These experts in their various fields serve as members of the technical committee to write nearly 300 codes and standards. In fact, one of the NFPA dust committees has technical committee members from both OSHA and the Chemical Safety Board, CSB.

Many NFPA codes and standards appear as mandatory references cited throughout federal agency regulations, including DHS, DOT, CMS, EPA and OSHA.

NFPA codes and standards provide a broad-based and comprehensive set of requirements applicable to many hazards, including combustible dust.

NFPA's principal dust document, "NFPA 654—Standard for the Prevention of Fires and Explosions From the Manufacturing, Processing and Handling of Combustible Particulate Solids"—covers the fundamentals of dust, protecting the dust hazard processes. And its handling and conveying requirements are often referenced in other dust documents.

We also have commodity-specific dust documents covering coal, sulfur, combustible metals, wood dust facilities and agricultural dust. In fact, the operations at sugar refineries, such as Imperial Sugar, are within the scope of NFPA 61, our agricultural dust standard.

I do not want to bore you with the long names and numerical designations, but NFPA provides comprehensive coverage of dust hazard in seven dust-related documents, originating as early as 1923.

The fundamental requirements and best practices found within these documents have been highlighted in the Combustible Dust Explosion and Fire Prevention Act of 2008, as well as the CSB recommendations and industrial peer review journals. The necessary requirements to prevent fires and explosions include minimizing production and release of dust to the workplace, and housekeeping procedures to minimize dust accumulation, thereby minimizing the fuel source.

Written programs are required to manage the hazard. Equipment maintenance is required to minimize ignition sources. All our dust documents address the hazards of combustible dust in three, simple steps:

First, hazard identification in terms of the type of dust and its means for generation and in terms of ignition sources;

Secondly, hazard evaluation—a risk-based assessment of the various processes and equipment used in dust hazard processes; and

Third, hazard control measures including building construction and location, explosion control and deflagration venting, housekeeping, fire protection systems and management of change.

In conclusion, if we are to safely and successfully regulate industrial processes that involve dust, the challenge for us all is to effectively disseminate the information, to provide sufficient training and ensure consistent enforcement. NFPA codes and standards adequately address how to mitigate or eliminate hazards of combustible dust. We encourage any action on your part that will more aggressively require compliance with these codes and standards.

Moreover, we believe the best method to accomplish this safety goal is for OSHA to develop a mandatory standard to address and mitigate dust hazards by incorporating by reference the relevant NFPA codes and standards. NFPA is committed to assist where appropriate in these activities. And for all these reasons, we support the Combustible Dust Explosion and Fire Prevention Act of 2008.

Thank you for your attention and the opportunity to testify.

[The statement of Ms. Spencer follows:]

**Prepared Statement of Amy Beasley Spencer, Senior Chemical Engineer,  
National Fire Protection Association**

Good morning, Chairman Miller and committee members I appreciate the opportunity to speak to you about The Combustible Dust Explosion and Fire Prevention Act of 2008.

I am Amy Beasley Spencer, a Senior Chemical Engineer representing the National Fire Protection Association (NFPA) and have worked at the Association for 12 years. I serve as the Staff Liaison to several NFPA Technical Committees responsible for documents dealing specifically with hazard recognition and control of dust hazard processes.

NFPA supports The Combustible Dust Explosion and Fire Prevention Act of 2008 and believes OSHA should develop a mandatory standard to address and mitigate dust hazards by incorporating by reference the relevant NFPA codes and standards.

Today I will provide a brief background of NFPA, a description of the relevant codes and standards that address dust hazard processes, and conclude with discussion on how I believe these documents could provide a safe and effective strategy for identifying and controlling processes that store, handle or use combustible dusts or other combustible particulate solids.

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Many NFPA codes and standards appear as mandatory references cited throughout federal agency regulations, including DHS, DOT, CMS, EPA and OSHA. NFPA codes and standards provide a broad-based and comprehensive set of requirements applicable to many hazards, including combustible dusts.

NFPA's principal dust document NFPA 654, Standard for the Prevention of Fires and Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids covers the fundamentals of protecting dust hazard processes, and its handling and conveying requirements are often referenced in other dust documents. We also have commodity-specific dust documents covering coal, sulfur, combustible metals, wood dust facilities and agricultural dust. In fact, the operations at sugar refineries such as Imperial Sugar are within the scope of NFPA 61, our agricultural dust standard. I don't want to bore you with the long names and numerical designations, but NFPA provides comprehensive coverage of dust hazards in 7 dust-related documents originating as early as 1923.

The fundamental requirements and best practices found within these documents have been highlighted in the Combustible Dust Explosion and Fire Prevention Act of 2008, as well as the CSB recommendations and industrial peer-reviewed journals. The necessary requirements to prevent fires and explosions include minimizing production and release of dust to the workplace, and housekeeping procedures to minimize dust accumulation, thereby minimizing the fuel source. Written programs are required to manage the hazard. Equipment maintenance is required to minimize ignition sources. All our dust documents address the hazards of combustible dusts in three simple steps—hazard identification (in terms of the type of dust and its means for generation and in terms of ignition sources), hazard evaluation (a risk based assessment of the various processes and equipment used in dust hazard processes), and hazard control (measures including building construction and location, explosion control and deflagration venting, housekeeping, fire protection systems and management of change).

In conclusion, if we are to safely and successfully regulate industrial processes that involve dust, the challenge for us all is to effectively disseminate the information, to provide sufficient training and ensure consistent enforcement. NFPA codes and standards adequately address how to mitigate or eliminate the hazards of combustible dust. We encourage any action on your part that will more aggressively require compliance with these codes and standards. Moreover, we believe the best method to accomplish this safety goal is for OSHA to develop a mandatory standard to address and mitigate dust hazards by incorporating by reference the relevant

NFPA codes and standards. NFPA is committed to assist where appropriate in these activities and for all these reasons; we support the Combustible Dust Explosion and Fire Prevention Act of 2008.

Thank you for your attention and the opportunity to testify.

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Chairman MILLER. Thank you again.

Mr. Wright, you state in the beginning of your testimony that these tragedies are, in fact, preventable. That is the basis on which you, I assume, looked at this problem, that prevention could be the result of both the investigation and your recommendations.

Mr. WRIGHT. Mr. Chairman, that is correct. We believe these are preventable events.

I am encouraged that OSHA has sent out 30,000 letters, advising and apprising people in various industries of the potential hazards, and to raise their awareness. But this is basic knowledge. It does not set the bar with respect to a standard.

And that is why we still hold with our recommendation that a formal standard should be adopted that everybody will abide by. And that will also increase the awareness of inspectors, as well as employers, with respect to the dust hazard.

Chairman MILLER. And you consider that—or the board considers that—critical to the prevention?

Mr. WRIGHT. Well, yes, sir. That is why we made the recommendation in our dust study.

Chairman MILLER. Thank you.

Mr. Foulke, you do not seem to agree with that recommendation at this point. Is that correct?

Mr. FOULKE. No, Mr. Chairman. I would say that this is something we are looking at all the recommendations. We do take very seriously the recommendations of the Chemical Safety Board.

As a matter of fact, if you look at our overall record with respect to all the recommendations that the Chemical Safety Board has made to us over the years, we have implemented over 73 percent of those recommendations in some form or another.

Chairman MILLER. It is the “some form or another” that worries me here, but go ahead.

Mr. FOULKE. Well—and I would be happy to discuss the individual ones, but what I would say is that we feel, first of all, we took their recommendations and we started to work on a number of those recommendations.

One of the recommendations was, as part of the combustible dust study, was dealing with doing some type of special emphasis program. We instituted our national emphasis program. We actually had a local emphasis program in place for combustible dust early on.

We then also had—one of their recommendations was to do training. We have done training of over—as I indicated in my testimony—over 1,000 of our personnel have been trained on the combustible dust.

And also, the question about the—on the standard. We are—as we take—as we get our information from our national emphasis programs, as we go out and research, or do the inspections to determine what caused or what is the items that we find, the violations that we find for combustible dust, we are going to look at that.

We believe that we have, as indicated, 17 different standards that are applicable to combustible dust. We are going to look at our results from our national emphasis program. And if we determine that there are—we do not cover everything that we need to cover, then we will consider rulemaking as a strong option.

Chairman MILLER. Mr. Wright, when you looked at that, the totality of those regulations—the housekeeping standards, the general duty standards and all that—your conclusion of the Chemical Safety Board was what?

Mr. WRIGHT. Well, Mr. Chairman, I believe that those are good, applicable rules for cleanliness and keeping the workplace clean. And oftentimes in these cases, the dust is hidden, as was pointed out in the West case.

And I do take a little exception to the witness that said that ceiling dust was sort of an unknown at that time. I believe the NFPA at that time—

Chairman MILLER. Specifically addresses that issue.

Mr. WRIGHT [continuing]. Specifically—ceilings should be tight from dust. And that is why our report read the way it did.

I still think, and my colleagues agree, that we should have a formal standard, so that employers and inspectors can keep this on people's minds for the long run, and not just for a short period of time with an emphasis program.

Chairman MILLER. Well, you know, this—I think we are drawing a difference that concerns me. Chemical Safety Board has done what I think we would all consider a rather exhaustive and comprehensive study of this problem. And they recommend that we go to a standard for this purpose, not knit together a series of standards from other codes and other reasons. And that is their recommendation.

And in your testimony, Mr. Foulke, you stand that all on its head. Instead of first, a recommendation that we have a comprehensive standard, you say first, they recommend that OSHA should have a national emphasis program. "We initiated a national emphasis program in 2004."

"Second, the Safety Board recommended and offered training throughout OSHA training institute. We recognize that combustible dust—prevention. We have been offering this training for several years."

How many people have taken advantage of that?

Mr. FOULKE. The training for our personnel?

Chairman MILLER. Yes.

Mr. FOULKE. We have trained—we have a 3.5-day—

Chairman MILLER. No, no, no, no, no. The general training program before you started the 3.5-day program.

Mr. FOULKE. The general training? Well, all of our CSHOs, when they do their initial training, receive combustible dust training—

Chairman MILLER. So, you are telling me that the people who are now taking the 3.5-day training have all had the initial training?

Mr. FOULKE. Yes, Mr. Chairman.

Before any CSHO can go on, out on and conduct inspections, he or she goes through a series of, a number of years of training on different safety and health standards, and all our procedures.



Chairman MILLER. Okay. We will ask you to verify that.

Then, a page later, you get down to, "Lastly, the Chemical Safety Board recommended OSHA issue a combustible dust standard." And then you tell us how if all your standards are followed, the workplace would be safe.

The explosions suggest that that is not the case.

Mr. FOULKE. Well, Mr. Chairman, I would say that the testimony—most everybody here has indicated that combustible dust explosions can be prevented. And the reason it can be prevented is because, if you eliminate the dust, there cannot be a combustible dust explosion.

And our position—and that is part of why we are doing the national emphasis program, is to outreach to and inspect these facilities where there are potential combustible hazards—

Chairman MILLER. Mr. Sarvadi's testimony was people in the facility, they had the information; they just did not act on it.

Mr. FOULKE. I am not sure—

Chairman MILLER. But they did not have the information about the ceiling, because it was not called to their attention. But it would have been, had we taken—had you had these other standards in place from the fire association.

Mr. FOULKE. Well, Mr. Chairman, I would say this, that we have been enforcing and citing employers for combustible dust hazards under our housekeeping standard, a number of these standards, since the early 1970s. So, we have been issuing citations on this.

And the courts have—the Review Commission and the courts have both determined that combustible dust is encompassed in part of the housekeeping—as part of the housekeeping standard.

So, if the employers comply with the housekeeping standards, there would be an elimination of the dust, and thus, there could not—it would eliminate or at least mitigate the hazard of having a combustible dust explosion.

Chairman MILLER. I do not read the Safety Board's recommendations and findings that they agree with that.

But Mr. Wright, is that accurate, that the housekeeping—if they were in compliance with housekeeping—that that would—

Mr. WRIGHT. Well, sir, I would just refer back to the OSHA standard for grain dust. I mean, when that standard got into place, 60 percent reduction in the number of explosions and fires associated with grain dust.

I think that abiding by current regulation will certainly help with the basic housecleaning requirements.

However, a robust standard that lays out specific requirements for all employers to follow will ensure that everybody follows the same sheet of music.

The particulars that are in place today are optional recommendations to folks. Mr. Foulke's letter itself calls attention to some of the standards and some of the procedures that are in place at his Web site, and asks people to make sure that they are aware of those, and that they advise their employees and they raise awareness.

And we appreciate that, because any raising in awareness with respect to dust explosion knowledge is helpful. But it is not going to prevent dust explosions from happening.

If the special emphasis program that has been in place since 2004 was really effective. We would not have seen half of the explosions we have seen in the last few years. So, I think it is ineffective, and I think we need to have a current dust explosion comprehensive standard to address those.

Chairman MILLER. Thank you.

Mr. McKeon?

Mr. McKEON. Thank you, Mr. Chairman.

Thank you, Mr. Chairman.

Mr. Sarvadi, you suggested without appropriate grandfathering provisions, the bill will require changes to every building constructed over the last century. Does OSHA have that authority?

Mr. SARVADI. They do not at the present time, Mr. McKeon.

I think one of the fallacies of the suggestion that we should just adopt the NFPA standards wholesale by reference is that the present system that we have does not permit that to be updated the way the NFPA standards would be updated.

All of the NFPA standards have provisions in them that talk about what happens to existing facilities. In the case of the 654, my written testimony included some information about those look-back provisions and when employers and building owners are required to upgrade their facilities.

So, even if we are successful in adopting the standard, it is going to take an awful lot of time and education to get people to understand what their obligations are, to understand how those standards apply to their facilities, and so on. And that is why I have emphasized in my testimony, and I repeated verbally here, how important it is for us to start thinking about how to get the information in the hands of people in a meaningful way.

Having the data, having the standards out there is not the same thing as having people understand exactly how to apply those standards.

And I think one of the—the one thing that is missing, I think, from the OSHA emphasis program is working with as many other organizations as they can find to try to make sure that people understand how to apply these standards. OSHA has cooperative programs with a number of different trade associations, many of whom represent industries that have combustible dust hazards in them.

We could much more quickly get many more people to understand these hazards if we had a program where we would go out and use those communication channels to make them aware of the NFPA standards, of the application of the housekeeping standard that OSHA has, and other standards, so that they would know how to prevent these events from occurring.

Yes, they are preventable, but it takes a lot more than just putting paper together in Washington to make it effective.

Mr. McKEON. I have found this is a pretty big country. And when you pass a law here, by the time you get it fully implemented, understood, enforced, you know, it is time to write another law. And that is a problem that we deal with on everything we do here.

Can you explain for the committee how imposing standards without notice and comment from affected parties can actually delay

implementation of safety practices, due to the likelihood of litigation?

Mr. SARVADI. Yes, Mr. McKeon, I can help answer that question.

I think the first point to be made is that the NFPA standards do have ambiguous provisions in them. So, simply adopting them wholesale leaves open the question of whether or not a particular standard applies in a particular location; that is, a particular provision applies to a particular location.

If you look closely at this standard, what you will find is two different sections. And I am talking specifically about 654.

The first couple of pages of 654 talk about the programmatic kinds of things that the bill contemplates. Behind that are a series of sections that talk about engineering standards or building design standards, and other kinds of things like that, that go directly toward the kinds of changes that need to be adopted and used in order to implement the 654 requirement.

Some of those are mandatory, and some of those are to be used when the person—in the words of the standard—the authority having jurisdiction decides that they are appropriate.

So, one of the things that you end up with ambiguous standards—especially when they are mandatory—is that people disagree on how they apply. And you end up, in that case, when you have a financial penalty like an OSHA fine or citation, you end up with people trying to decide whether or not it is appropriate to comply with that provision and whether or not it applies in their particular circumstance.

The standards—the voluntary standards recognize that distinction. What the hearing process does, when OSHA holds its hearings in Washington to review proposed standards, is it allows the agency to hear from people who have to live with these provisions on the ground, how these ambiguities are going to affect them, how they are going to be interpreted, what kinds of an impact the different changes are that are proposed are going to have—and equally important, how long it is going to take to implement those changes.

So, I think if we skip that step, if we do not have the opportunity to hear from people who have to live with these things on the ground in their daily lives, we are going to end up with a standard that is not going to achieve the objectives that we all have, which is to have a safer workplace for everybody.

Mr. McKEON. Thank you very much. Mr. Chairman, my time has expired.

I apologize for being late and missing my opening statement. If I could have it included in the record at the appropriate—

Chairman MILLER. Without objection.

Mr. McKEON. Thank you.

[The statement of Mr. McKeon follows:]

**Prepared Statement of Hon. Howard P. "Buck" McKeon, Senior Republican,  
Committee on Education and Labor**

I thank the Chairman for yielding. We're here this morning to examine the Combustible Dust Explosion and Fire Prevention Act, a bill introduced in response to the recent accident at the Imperial Sugar Company refinery in Port Wentworth, Georgia. We have with us two distinguished panels of witnesses, beginning with two members from the state of Georgia. I want to thank each of you for being here.

Each of us is saddened by the loss of life and the grave injuries suffered at the Imperial refinery. It is natural to wish we could have prevented this and every accident, and I understand the desire to introduce legislation that seeks to do exactly that. We are here today to examine the specifics of that legislation, and to determine whether it provides the most reasonable and effective path to preventing future workplace accidents.

I look forward to hearing from our witnesses a more detailed analysis of the bill and its likely impact. However, to spur that discussion I would like to raise a few key questions.

First, I believe we need to look at the specific regulatory process called for in H.R. 5522. We have in place longstanding laws and procedures governing the rulemaking process. These laws ensure not only that regulation is serious, legitimate, and credible, but also that all stakeholders are able to contribute valuable input to the rule-making process. By short-circuiting the regulatory timeline, do we risk the integrity and effectiveness of the final rule? Do we sacrifice safety by placing speed over substance?

The second area I hope we will consider is whether a one-size-fits-all approach will hamper safety efforts within individual industries. As I understand it, this bill calls for a final standard addressing all forms of combustible dust. However, it is also my understanding that dust hazards vary greatly from industry to industry. Do we lose effectiveness by demanding an immediate, yet general standard for all dust as opposed to looking at the hazards faced in different industries?

Finally, I hope we will bear in mind the importance of scientifically-based evidence when establishing workplace safety standards. Try as we might, our wisdom in Congress can never replace that of knowledgeable experts who rely on sound scientific study to develop these standards. I fear that a superficial regulatory process would not be based on a sufficiently rigorous scientific framework. Is there a danger that this bill limits OSHA's ability to regulate with the most scientifically-based information?

The tragedy at the Imperial Sugar refinery underscores the need for continued workplace safety vigilance. OSHA must take its responsibility to regulate seriously. And we must take seriously the ramifications of creating a new regulatory framework on this or any other issue where we feel a desire to override regulation with legislation.

Once again, I want to thank our witnesses for being here. I want to thank Chairman Miller for convening this hearing, which I hope is the beginning of a thoughtful and inclusive process that takes into consideration the questions I have posed today. With that, I yield back.

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Chairman MILLER. Ms. McCarthy?

Mrs. MCCARTHY. Thank you, Mr. Chairman. And thank you, everybody, for your testimony.

Just going over a number of the testimonies—and I know we have been going back and forth with votes and everything—when you talk about the dust, and you talk about, Mr. Foulke, about only  $\frac{1}{32}$  inch deep of combustible dust covering an area of at least 5 percent of the total area of a room is enough to cause a catastrophe dust explosion, and when you were explaining that on the second part where, you know, general cleaning should take care of that particular problem.

I know that when I dust my house, the most dust is up in my ceiling fan, which is a little difficult to get to at times, but that is where we go for it. Because obviously, every time I put the fan on, and the dust is going all over the place. But it still builds up.

So, I am trying to think of, when you go for the inspections, or even talking to the employers, how do you tell them to clean up there? Because reading the rules, it does not sound—you know, keep the hallways clean, keep the floors clean. I did not see anything that mentioned—is it supposed to be just known that you should clean the ceilings?

Mr. FOULKE. Yes, madam.

They have a—our housekeeping standard is a performance standard, as are a lot of our standards. So, it allows the employers the flexibility to determine what their hazards—what is the hazard that they have to address there, and how is the best way to address that hazard.

So, with respect to rafters and the accumulation of dust on rafters, under the housekeeping standard, it is our position that they would be required to make sure that dust does not accumulate in those areas.

Mrs. MCCARTHY. So, if the employers know that they are supposed to clean the rafters and the ceilings, how did so much dust—who is inspecting them? Who is making sure that there is not enough combustible dust up there?

Mr. FOULKE. Well, as part of our national emphasis program, we are going into facilities that we have identified as having a potential for combustible dust hazards. And that would be part of the inspection process, to look into those areas.

Mrs. MCCARTHY. Mr. Wright, do you have any answers to that?

Mr. WRIGHT. Well, I wish I did, other than my firm recommendation that we have a comprehensive dust standard that will address those areas.

And I might add that, in addition to simple cleanup, one can not go into a confined space with an air hose and just push dust around, particularly if there are live ignition sources available, because in an attempt to clean up the area, the person may in fact create the disaster that he is trying to avoid.

And we would think that a comprehensive dust standard would help advise people on what the proper and safe way to clean up these facilities is, rather than just relying on a good housekeeping standard, as it were.

Mrs. MCCARTHY. But one of the things—I know that we have a grain handling standard. And I am just again thinking of common-sense things that happen around my house. I feed the birds in the winter.

So, when I open that bag and I am pouring it into my plastic container, a whole bunch of dust comes up. And I am thinking, wow, I am breathing this, you know. So now I only do it outside.

So, if you are in a plant and you are working with all of these chemicals, whether it is grain, whether it is sugar, you know, flour—gosh, you know, I am not knowledgeable in those areas, but that is an awful lot of stuff that is going up in the air and people's—in the lungs and everything else like that.

So, with some of the incidents that we have seen, and unfortunately with too many people being killed, what is the problem of trying to get almost all the different kind of dusts under one kind of program, so that particular manufacturer could actually follow those rules?

Mr. FOULKE. I am assuming that is addressed to me. I am sorry.

Well, I would say that, what we do is we already—well, as part of our inspection process and the rules that we have that are mandatory, all the 17 standards that I noted in my testimony that we believe are applicable to combustible dust, are mandatory. Employers are required to follow those.

To answer part of your question, too, is about the dust and not necessarily just all housekeeping. We also have a standard on ventilation, which will require employers to make sure that they are venting out the dust away from the—outside the facility.

Also, part of this, as part of the housekeeping, may mean that the employer would be required to ensure engineering controls were in place, so that the dust would not even escape the process itself, and so, thus have hoods on top of the drums, or whatever, so that the dust would be captured and would not get out into the workplace itself.

So, there is a series of things that actually would be applicable. And then, we think that we have all these in place.

Mrs. MCCARTHY. But obviously, that did not happen, because the plant did explode.

Ms. Spencer, do you have anything to add to the conversation that we have been hearing?

Ms. SPENCER. Yes, I do.

First, NFPA would like to commend OSHA for all the work that they have done on the dust hazards, as well as the CSB.

Mr. Foulke mentioned that the housekeeping standard is performance based. And that is correct, and I do agree with that. However, looking through the OSHA regulations, there are three or four places with just a few very general, non-specific type requirements, such as, the floor of every work room shall be maintained in a clean and, so far as possible, a dry condition.

NFPA standards go so far beyond that, where it really discusses the different types of hazards that can occur in a facility. And as Mr. Wright pointed out, just telling them to do housekeeping is not enough, because, in some cases, housekeeping can actually cause the explosion if not done properly.

NFPA codes and standards address exactly how to do the clean-up properly—like, for instance, with a special hazard such as metals. Before you can even begin to clean up, NFPA 484 requires a preliminary cleanup using non-sparking scoops and soft-bristled brushes.

So, you can go through a plant and you can see footsteps, and you know that there is a dust hazard. So, that means that there needs to be more housekeeping.

Okay, so you clean it up 24 hours a day. There is still dust there. That means there is a bigger problem in the system that needs to be addressed through equipment, dust collection and other types of requirements to protect the workers.

Mrs. MCCARTHY. If I may, Mr. Chairman, just to Mr. Foulke.

Has OSHA, with the budgetary pullbacks over the last several years, do you have enough inspectors to really keep up with everything that is going on in all the different plants that we have across this country?

Mr. FOULKE. You know, what I would say to that, we have a very effective inspection program. We target—we have a specific targeting program for our inspections. We have what we call our site-specific targeting, where we identify those employers that have the highest injury and illness rates, and those are the ones that are on a—for a comprehensive, wall-to-wall inspection.

We also have different programs where our national emphasis programs, which we have here in combustible dust, and we have a whole series of national emphasis programs, where we target those particular hazards that are most—that we find the most—causing the greatest injury or illnesses to employees.

Mrs. MCCARTHY. But that is not actually answering my question.

I am asking, do you feel that you have enough inspectors to do the work that needs to be done around the country?

Mr. FOULKE. I would say that we are obviously doing the job we need to be doing, because if you look today, the most recent data that we have, we had the lowest injury, illness and fatality rates ever.

So, I think the system that we have in place, we are doing the job, and we are getting to the places we need to get to.

Mrs. MCCARTHY. Thank you, Mr. Chairman. I yield back my time.

Chairman MILLER. Thank you.

Mr. Davis?

Mr. DAVIS OF TENNESSEE. Thank you, Mr. Chairman.

And I would like to thank the witnesses. Thank you for your testimony. This is a very important hearing dealing with the health and safety, and even lives, of American workers. Thank you for being here.

I would like to start with Mr. Sarvadi, please.

I understand you are an industrial hygienist with experience with different types of dust. Can you estimate how many different types of dust exist in the workplace today?

Mr. SARVADI. No, because they are probably innumerable.

The one thing I wanted to make a point about is this, the notion of combustible dust, when we talk about this, we have a definition that NFPA has come up with that is very broad. Any dust—expect for what we call mineral dust, things like rock and sand and that sort of thing—can be combustible under the right circumstances. So, it is a very broad subject area.

Mr. Foulke mentioned that they sent out 30,000 letters. I have heard numbers like 80,000 workplaces around the country. If you ask me, I would say the number of workplaces that might have in some part of their operation a combustible dust potential, is on the order of maybe several million.

It is a very, very common problem, if you are using certain kinds of things and doing certain kinds of things.

And I want to clarify one thing, if I may, Mr. Davis, about the comment that Mr. Wright made about West Pharmaceutical. The problem at West was that we had a chemical substance in a form that you would not expect to present a chemical—a combustible dust hazard.

It was a liquid slurry of polyethylene. And if we are to believe what the report says about that, the polyethylene that was in this slurry was used in a very thin quantity on the parts in the facility. Those parts were dried.

And somehow, that small quantity was carried off of the parts, up into the ceiling, and deposited in concentrations that were not visible to the naked eye. In other words, as Ms. McCarthy sug-

gested earlier, when we open a bag we can see the dust. Here you were opening a container that has a liquid in it.

And when I said I was humbled by the experience in reading the report, what I meant was, I would never have thought that using that slurry in that circumstance would have produced enough dust, even over the 10-year period between 1996 and when the explosion occurred—probably not exactly 10 years, but anyway, over that period of time—that there would have been an accumulation sufficient to cause the devastation that occurred there.

Obviously, something happened. I do not know exactly what it was.

But what I am telling you is, even with my 35 years of experience having looked at these problems over the years, looking at that particular process, I would not have said combustible dust might be a problem. That is what I mean when I say it is hard to know where combustible dust is an issue.

Yes, there are—there is information. Many material safety data sheets talk about combustible dust being a potential hazard. That is the starting place. The process that has to occur subsequent to that involves everybody in the facility.

And in regard to the question Ms. McCarthy asked about housekeeping, when I was working with companies that have—and still work with companies that have—combustible dust issues, you have to have a housekeeping program that involves using vacuum cleaners, long-handled brooms, all kinds of things, even to the extent of on a periodic basis, either semiannually or annually, going through and cleaning those flat surfaces.

When I was a young industrial hygienist, one of the old, gray-haired gray beards in the business advised me, when you first go into a plant, look and see what the housekeeping is like. The housekeeping will tell you how much pride the people in that facility have in their operation. And if they keep a clean plant, the chances are they are going to be paying attention to the small things.

So, I think the problem that we have here is not a question of standards. We have lots of standards. The standards—even the voluntary standards like the NFPA standards—can be enforced by OSHA under the general duty clause. And that by no means is a voluntary requirement.

And so, it is not a question of having standards and knowing what to do. It is a question of getting the information in the hands of the right people.

Mr. DAVIS OF TENNESSEE. I would like to follow up. And I think I understand. You say there are different types of dust. Then do those different types of dust have different combustible properties?

Mr. SARVADI. Absolutely. In fact, in the NFPA standard, we have heard the reference to the  $\frac{1}{32}$ nd of an inch of dust. The NFPA standard sets that as the minimum level for highly explosive dust.

There is actually a formula in the standard that talks about making adjustments to that level, depending on what is called the bulk density of the dust. We could spend hours talking about these kinds of technical details.

The point is, not every combustible dust is the same. Not every combustible dust presents the same degree of hazard. And that is



why, in the context of the NFPA standards, the authority having jurisdiction and the people who implement these standards have to make judgments—and we are introducing the human element again here—they are making judgments, fallible human judgments, about how to apply those standards.

That is a different process than what we have been talking about in the enforcement context.

Mr. DAVIS OF TENNESSEE. Thank you. My time has expired, and I yield back.

Chairman MILLER. Mr. Sarbanes?

Mr. SARBANES. Thank you, Mr. Chairman.

I am listening to this discussion of the housekeeping standards and whether they are sufficient or not sufficient. And your description of what happened with that liquid container seems to me to be an argument that housekeeping standards, given what you said, Ms. Spencer, are not always going to get to the problem, because you need more specific kinds of oversight to determine whether the workplace is being maintained in a way that is safe and is going to prevent these accidents.

I wanted to ask you, Mr. Foulke. Right now there is a comprehensible, or comprehensive—hopefully it is comprehensible, too—but grain dust standard in place, right, that OSHA administers within—

Mr. FOULKE. We do have a grain dust standard. That is correct.

Mr. SARBANES. So, if there were not one in place, would you be arguing that the housekeeping standards, and other things that your agency engages in, are sufficient, that you would not need to have a grain dust standard in place today?

Just assume that it had not been done in 1987, and we were having a discussion today about the grain dust standard. Would you be taking the same position on that that you are taking with respect to the combustible dust standard?

Mr. FOULKE. Well, Mr. Sarbanes, we have—if you look at the grain dust standard, it actually does have—focuses on housekeeping, ventilation, the standards that we have there in place. And so, if there was not—and prior to the implementation of the grain dust standard, employers in those industries were being cited under our mandatory standards for housekeeping and ventilation, and so forth.

And there is a grain dust standard. But unfortunately, there are still explosions in grain dust facilities, and there are still fatalities in grain dust facilities. So—

Mr. SARBANES. Well, what does that mean?

Mr. FOULKE. Well—

Mr. SARBANES. I mean, there is a lot less of them than there used to be, right, before the standard was put in place? From what I—

Mr. FOULKE. I think the number of fatalities have reduced. And if you look at, like I mentioned earlier, we actually have had the number of fatalities across the board, we have been able to reduce those across the board in the country. We are at our lowest rate in fatalities, and also the lowest rate of injuries and illnesses in the country as ever experienced right now.

Mr. SARBANES. See, I come—and I assume that light is not correct.

Chairman MILLER. It absolutely is not correct.

Mr. SARBANES. Okay. I come not knowing a lot about the subject ahead of time, so I have been listening very carefully. And I just—it seems like you are hemmed in by a bunch of things.

One is that you have this precedent of the grain dust standard, which seems to have made a significant difference by raising awareness significantly on it. You have got the Chemical Safety Board. You have got the NFPA, that are urging that there be a specific standard with respect to combustible dust.

And you yourself keep saying that, well, you know, we are doing all the things that—what I am hearing you say is, we are kind of doing all the things that we would need to do if there was, in fact, a comprehensive combustible dust standard in place. We are doing those things now.

So, I do not understand where the resistance is to establishing this standard that is being urged left, right and center, it seems to me, by everybody around you.

So, if you could just explain that a little bit better for us.

Mr. FOULKE. Mr. Sarbanes, I would say, as I mentioned earlier in my testimony, we are—we have instituted this national emphasis program, and we are gathering information from that to determine whether or not, are the standards that we have in place now sufficient to meet the hazards that we are dealing with.

And we have not ruled out the possibility of doing rulemaking. So, we are looking. And that is an option for us still.

But we are just trying to collect the data through the national emphasis program, where we are looking at all the—as many sites as we can, and inspecting those sites to determine, do we have a—do our standards actually cover what we need to cover? Or is there some holes in the coverage that we need to address, and would a comprehensive standard address that.

And I would note, too, about the grain dust standard. The grain dust standard covers a lot of other things. And part of what—and actually, one of the focus points of the grain dust standard was engulfment, where we were having significant problems, where people were in grain and in grain silos, and were being engulfed, and resulting in fatalities. There is that part. So, there is a series of things that we actually look at in the grain—

Mr. SARBANES. Well, I think it is great that the grain dust standard is there. I just think that it creates a pretty powerful precedent to address this kind of situation in a similar way.

And I allow that not everything that happens in the past is a precedent that should be applied broadly. But it seems to me that there is sufficient evidence and statements by those who know this area best, that a comprehensive standard here would make a lot of sense.

And one of the things I worry about is the negative implication of it not being there. In other words, if there is a standard that exists with respect to other things, and yet there is continued resistance—now, you say your mind is open, and I appreciate that—but if there is a perception of continued resistance to establishing similar kinds of standards in this area, then people are going to draw

from that. You know, they are going to infer, maybe, that the attention, the awareness, whatever it is, is not as heightened as it ought to be.

And so, there is a value in setting these standards, actually, that goes beyond—that is more than the sum of the parts. I mean, you are kind of talking about, you have got all the parts in place to do the kind of oversight that needs to happen to protect people.

But what you get by establishing a comprehensive standard is you ratchet it up. You ratchet the awareness of it up. You heighten awareness, so that, as Ms. Spencer was saying, it is not sufficient in people's minds to—people do not get complacent just because they pushed a broom or they vacuum every 12 hours, because I understand there is sort of a higher level of scrutiny expectation that is in place.

So, Mr. Wright, maybe you could speak to that, that idea of heightened awareness being part of what we are trying to achieve here with a comprehensive standard.

Mr. WRIGHT. Yes, sir.

I think, if you do a comparison with the grain dust standard, as I testified to, it has specific schedules. Written programs are required. You do not use compressed air necessarily to clean up dust. You remove anything that is greater than an eighth of an inch thick immediately. And you ID priority areas that you are going to work in.

This is all absent from the general housekeeping standard with respect to combustible dust. And that was one reason that we recommended that a comprehensive standard be in place.

And as you pointed out, a comprehensive dust standard will keep this awareness alive forever, as opposed to a finite point in time that an emphasis program may, in fact, people become complacent with and forget about, because they are lucky and they have not had any fatalities or incidents.

It is not unlike what I worked with for most of my adult life—explosives. You know, people do die with explosives, because they do get complacent with what they are handling. The same can be true with dust.

Mr. SARBANES. Thank you. My time is finished.

I would just note that, with an emphasis program also, something else may come along that requires new emphasis, pulls the attention away from this other thing. And if you have it in place as something you have to continually look at, that also drives the resource question that Congresswoman McCarthy asked, because then you might decide you do not have enough resources to do the job you need to do to cover the permanent standard, or comprehensive standards in place and, to do the other emphasis things that you need to do.

Thank you, Mr. Chairman.

Chairman MILLER. Thank you.

Mr. Payne?

Mr. PAYNE. Thank you very much. Thank you, Mr. Chairman, for calling this very important hearing.

You know, it seemed that to me, primarily to the OSHA assistant secretary, that we would see that the prevention of deaths and injuries would be decreased as we move forward, because we had

new techniques and we have a knowledge of how to try to prevent things. But it seems that we still are having unnecessary deaths.

You know we had the hearing about synthetics, lingerie and the deaths that were occurring in that industry. And lo and behold, shortly after that hearing, we had two deaths right in my district at the Northeast Linen Company in Linden, New Jersey, where two employees, improperly trained, improperly prepared to do that, suffocated to death. This is like a week or two after we had the hearing, talking about why can't we have better standards. Ms. Woolsey and Mr. Wilson and other members came to the hearing in my district.

And so, I do have a concern that we are really not stepping up to the plate, even while we—as a matter of fact, while we were having a hearing in Linden that day, two—a man from my district fell from cleaning windows over in New York. One actually lived, to be honest.

But Mr. Foulke, at our last hearing when you testified, when you were here last testifying at a hearing on OSHA's failure to issue standards, I expressed my concern at that hearing with OSHA's promotion of voluntary programs.

We hear a lot about voluntary programs. Companies want to do the right thing. And therefore, we should leave it up to them. Government that governs least is best. You know, keep the government out of the workforce. That is the philosophy, it seems.

But I asked you about the alliances, and the alliances over mandatory standards. Now, it seems, with your new combustible dust Web site, and your refusal to work on a dust standard, that you are following the same path as we heard about the voluntary standards that you talked about before in that industry.

At that hearing, I asked you specifically then about the Reactives Alliance, and whether you thought that voluntary efforts like alliances, and specifically the Reactives Alliances, were more effective than OSHA standards. At that hearing several months ago, you replied, "Yes," because "OSHA is able to outreach to more employers," and thus cover so many more employees, by quickly developing and working together to develop these guidance documents, these best practices, these training modules.

Now, at this time, we have four people dead from a preventable reactives explosion in Jacksonville. And according to OSHA's own records, the only thing that Reactives Alliance did was to put up a Web site and set up some booths at a conference—and actually trained only 36 people. And the alliance was discontinued last year.

Now, it seems to me that, if you had changed the process safety management standard as the Chemical Safety Board recommended, thousands of workers would have been trained by now, these standards would have been mandatory, and it is possible that these four workers in Jacksonville, who are now dead, may have been alive.

And so, and I fear that the way you are heading with combustible dust is the same as we have had in the past.

So, my question. So, how can you still tell me that Reactives Alliance was more effective than revising the process safety management standards would have been? And can you tell me why a

standard that everyone must comply with won't be more effective and prevent reactive chemicals or dust explosions?

You know, we still seem to have this non-mandatory, let-every-one-do-the-right-thing thing, and it is not working. I would just like to get a clarification, because I asked this question specifically and got that answer that I quoted from the testimony.

Mr. FOULKE. Well, Mr. Payne, first of all, I would really—I do believe strongly in our alliance program, because I do believe that it allows us to outreach to so many more employers.

But with respect to reactives, I would first mention the fact that we do have a number of OSHA standards, including process safety management, hazard communication, flammability and combustible liquids, fire protection, that are already on the books that are applicable to reactive chemicals. So, we do have standards that are in place on that. So, we are there.

With respect to where we are, once again, we are looking at—we have not ruled out doing this, a standard of this. And we are actually working with the Process Safety Alliance, which is an alliance we put together with the Center for Chemical Process Safety, the American Chemical Society, American Chemistry Society, the Petroleum Institute, the petrochemical, the Chlorine Institute, EPA. We brought all this expertise together to focus on reactives.

We are looking at how we can go about that, and we are trying to be effective on this particular issue.

Mr. PAYNE. But you still opposed the mandatory. I mean, you said that you still think that it is going to work out all right.

How many deaths does it take to see that it is not working?

Mr. FOULKE. Well, I would say, we are still looking at the issue of a possible standard. We have not ruled it out. I cannot—I would not say—I would be—we are looking at the possibility of working with a standard.

And the fact that we put this Process Safety Alliance together will help us determine, first of all, how these coverage with respect to reactives, because that is a question in and of itself, as to what—how should be the scope of a reactive and the definition of reactives.

Mr. PAYNE. Well, my time has expired. But what bothers me with this administration is, whether it is the beef that they said was unfit for human consumption, but then OSHA concluded that it was not injurious to your health—something I cannot figure out, but that was last week's hearing.

I cannot figure out how they said we had a great recall of hundreds of millions of tons of beef, and found out that 80 percent had been consumed. Well, why do you talk about a recall? How can you recall something that is already consumed? It is not a recall—that is eaten.

But once again, the lack of enforcement—I had to ask the witness, did you seem the same video I saw about these cows that could not walk to slaughter, so they put them on lift trucks and rolled them in and dropped them in, because you are supposed to be able to walk to your slaughterhouse. And there just seemed to be the fiddling while Rome is burning.

We have to start protecting. American people deserve better. They deserve better for their food. They deserve better for their

health. And they deserve better for working conditions for working men and women.

I think my time has expired. Thank you.

Chairman MILLER. Thank you.

You know, Mr. Foulke, I guess what haunts me as I listen to this—to many of your answers, is the words of Ms. Miser when she said that, when she saw the work of the Chemical Safety Board, the work product there and the recommendations, she thought at last something would finally happen that would protect other workers in these dust-related industries from the horror that her brother and her family went through.

But I must tell you, I just see such an incredible lack of urgency on your part about the role of your agency to protect workers, that it is astounding.

You mentioned that you are now engaged in the process of accident mitigation with the chemical industry and the refineries. And you rattled off a whole list of people there.

That is after one of the worst accidents and one of the most scalding reports by the Chemical Safety Board that we have seen in the history of this program. And the negligence and the conspiracy to avoid spending money on that refinery reached all the way in to the board room of British Petroleum, and caused the exit of a number of those officials—and a huge fine.

We are hell on wheels after the accident. But nobody was inspecting that facility to see the buildup of the process problems that led to that accident prior to that accident.

You keep talking about how you are citing people on housekeeping, and most of it is after an accident. You come in after the fact and you say, you violated housekeeping.

And yet, as we have seen in the exchange here between the members and you, it is quite unclear exactly what housekeeping means, and whether housekeeping itself would result in a diminution of the accidents. We have had the housekeeping standards, and we keep the accidents going.

I guess one of the nice things about seniority around here is you are around long enough to see these arguments come around. I was here when grain elevators were popping up like fireworks. And we went through all of these same arguments. And we went through hidden places of dust, because some of these grain elevators had false ceilings in them, depending upon their capacity and their design. And the housekeeping made them more dangerous.

I went through this in terms of occupational health on dust standards in the—the cotton dust standards, and their housekeeping, again. Well, we just—we pick it up after every shift. We blow it around. And we found out that that took engineering.

In fact, many in that industry now say that that engineering changed the productivity of those plants that engaged in it, and kept them competitive for many more years against foreign competition than if they had not done it, because they had to invest in a new generation of machines that made them far more effective.

And yet, against that evidence, against a 60 percent reduction in the explosions on grain, you want to suggest that you would like

to keep the housekeeping standards that we had before the grain explosions, that this industry has not quite come to it yet.

And yet, we see a process here. I mean, we are trying to be user-friendly here. We see a process. Mr. Sarvadi makes the best case for the fire association standards. He says, they have taken into account—in answering Mr. Davis' question—they recognize there are different kinds of data. They recognize there is a different kind of specific gravities, or whatever, densities that he pointed out.

This is what they do. They arrive at these consensus standards across a broad range of hazards within particular industries, and in some cases they are adopted on a mandatory basis, some cases, apparently on a voluntary basis. Some places they are incorporated into existing codes. And it is an evolutionary, ongoing process.

You are here clinging to what you have done, and it has turned out to be incredibly ineffective in terms of getting the kinds of results that workers in this country are entitled to, the kind of results that we saw in cotton dust standards, that we saw in grain standards.

But I went to those hearings at those elevators when I was a new member of Congress. I listened to those workers and to their families, and I listened to those owners. But in fact, the grain standard has turned out to be the right thing to do.

There comes a time—you know, you are suggesting that if a person can navigate the Web site, if they get the advantage of the emphasis program, if they get the letter and they understand it, if they know that somehow that the grain standards may also apply to their business, even though they are not in the grain business, that they can knit together a system of safety.

I think Ms. Miser's brother is entitled to more than that. And I think the workers in Savannah were entitled to more than that.

And I appreciate that this was a liquid that we did not understand, except we understood the purpose of its application was to create dust between the layers in the products and rubber. But housekeeping would not take care of that, because the dust migrated. It was a spotless facility. It just did not anticipate that.

So, we can continue to do this very convoluted, disjointed system and tell the workers to take the hindmost. That is just not going to be acceptable to this committee, and it is not going to be acceptable to the Congress.

We are trying to do this at a threshold that works for employers, that works for regulators, and that allows a process to go forward to have the continuous improvement.

But you want to cling to the past, you are welcome to it. But it has turned out to be fatal for the American workers. I just do not understand it. I just do not understand it.

You are certainly free to reply, because you obviously do not agree with me.

Mr. FOULKE. Well, Chairman Miller, I would say once again, as I mentioned earlier, we have been inspecting for combustible dust hazards. We have been doing this since the 1970s. So, it is not that—we are not a Johnny-come-lately on this issue. We have been working on this issue. We have been issuing citations to employers.

And once again, the number of inspections that we are doing, we have been continually increasing the number of inspections over

the past number of years. We are getting out to those facilities. We are targeting the ones that our emphasis programs are targeting. And—

Chairman MILLER. Again, let me explain something. When you answered Ms. McCarthy, you talked about injuries and falls and those kinds of things.

That was exactly what your attention was directed to with respect to British Petroleum. That everybody was walking around saying how many worker safety days did they have and nobody fell and broke their leg, sprained their ankle or lost a day of work. And meanwhile, this refinery was getting ready for one of the great explosions in our industrial history.

Mr. FOULKE. Well, I would, with respect to—

Chairman MILLER. Oh, I said, that is how you said you selected your intensity of your inspections.

Mr. FOULKE. That is—

Chairman MILLER. Those industries where you have the most slips and falls.

Mr. FOULKE. That is part of our site-specific targeting. That is correct, Mr. Chairman.

But we also have our local emphasis programs and our national emphasis programs, which target those areas where we find—particularly our local emphasis programs focus on those local issues where they are, where they are seeing that they are having the most serious safety and health issues.

And so, they target them on a local level. And then on the national level, we are looking at where we have a lot of—where we are seeing on the national basis, safety and health issues, to address those.

And I think, once again, the statistics, the injury and illness data shows that we have the lowest rates that we have ever had. We have had the lowest number of fatalities we have ever had.

So, I believe we are at least moving in the right direction. And as I indicated here on this particular issue, we are looking to gather the data from our national emphasis program to determine whether or not we need to go to rulemaking.

Chairman MILLER. Well, Imperial Sugar was not on your inspection list.

Mr. FOULKE. It would have been on our national emphasis program, yes.

Chairman MILLER. But it was not.

Mr. FOULKE. We had not—

Chairman MILLER. But you are telling me about a program that has evolved since the 1970s, and Imperial Sugar was not on the list.

Mr. FOULKE. On the national emphasis program?

Chairman MILLER. No, no. On the inspection, the site—

Mr. FOULKE. On our site-specific targeting. Mr. Chairman, that is correct.

Chairman MILLER. That is correct.

Mr. FOULKE. They had—their lost-time injury and illness rates were very low, and so they were not under our site-specific targeting.

Chairman MILLER. My time is—I will come back around.



Mr. McKeon?

Mr. McKEON. Thank you, Mr. Chairman.

Ms. Spencer, H.R. 5522 suggests that OSHA create a standard no less productive than the NFPA 654 and 484.

How many other standards are referenced in those two documents? Are these in the public domain? And if not, how much would it cost a non-member of your organization to obtain these materials to ensure any dust program meets the NFPA standards?

Ms. SPENCER. Mr. McKeon, there are a number of documents referenced in all of our NFPA codes and standards, because, for instance, when there are electrical concerns, as there are with dust, it would refer to the National Electrical Code. So, there are a number of references.

All of the dust-specific—the specific commodity dusts are referenced back to NFPA 654, which is the Fundamentals of Dust document.

You also asked, are they available to the public. All of our codes and standards are posted on our Web site for free read only, so they are available for anybody with no cost.

If I may add another point. Mr. Sarvadi mentioned his opinion that the NFPA codes and standards are ambiguous. And I respectfully disagree with that. And he specifically mentioned that the authority having jurisdiction, and other enforcers, have a lot of leeway.

In NFPA codes and standards, in the body of the standard, which is the mandatory portion of the standard, it is written in mandatory language, all with “shalls.” There are “shoulds” in the advisory material that gives people information.

With any kind of a regulation, including OSHA regulations, there is some judgment that is necessary, every situation cannot be addressed, due to the variables at each facility. The committees and the documents cannot address every single permutation of how a facility is laid out. So there has to be judgment through the authority having jurisdiction and the users of the standard.

So, I definitely disagree that the codes and standards are ambiguous.

And his assertion that there is not buy-in, NFPA is an ANSI accredited association. And all of our committees are balanced. And we have public comment to—ANSI requires one set of public comment on the changes. We have two.

We have a whole system set up, such that consensus is well established.

Also, Assistant Secretary Foulke mentioned that more data are needed before the codes and standards should—before it is clear that a rulemaking should be done. And I disagree with that also, respectfully.

The investigations, just through the CSB, have pointed to all the same things, and they are the same things that NFPA codes and standards have requirements on. It is a broad measure of problems with the different types of dust.

And NFPA has had written documents since 1923. And decades before that, there was initial work on that. So, it is highly unlikely that there would be anything profoundly new in the area of dust

explosions that would be uncovered with the national emphasis program.

The requirements are out there in NFPA codes and standards. And we would like OSHA to mandatorily reference them, as opposed to taking bits and pieces and creating their own regulation on dust hazards.

NFPA has seven dust-related documents. And we request that these be referenced mandatorily, such that it is a comprehensive coverage of dust hazards.

Thank you.

Mr. McKEON. I am looking at this standard for the NFPA 654, Standard for the Prevention of Fire and Dust Explosions From Manufacturing, Processing and Handling of Combustible Particulate Solids.

There is quite a bit of detailed explanation. And I am wondering what kind of a degree you would need to, you know, to put this into place.

I come from a business background, and I visit companies, you know, some small, some large. And small companies, I do not know where they would get the people to read and put in force all of these things.

I understand the seriousness of the problem, but I like what you said about it takes judgment. And at some point, there has to be some local judgment. And I would think that people are trying to do their best.

You know, we could put lots of laws in. We could have somebody enforcing at everyone. And I guess there are still some acts—I know the object is to prevent all accidents. And I wish we could. And I guess we should continue to work toward that.

But the more we write more documents like this that have more and more detail A.9.7, the ignition temperature of a layer of dust on hot surface—you know, it just goes on and on and on. And I appreciate what you are doing.

It just looks like a very tough situation. And I have sat through, now, a number of these hearings where we have had very serious accidents, where we have had people lose their lives and had loved ones here that are feeling that loss. They are all tragedies. And I do not think anybody does any of these things on purpose. It would be good if we could eliminate all of the potential problems.

I commend what you are doing to try to alleviate things and encourage you to continue it. But I guarantee you that a few of us here passing a law is not going to change all of that, as much as we try.

I do not know anybody more passionate and more caring about it than Chairman Miller. But it is a tough situation.

Thank you, Mr. Chairman.

Ms. SPENCER. If I may speak, Mr. McKeon, to you point.

You noted, what kind of degree do you need to be able to look at this. And what you actually cited was in our advisory material. What we try to do is also educate the people who are using the standard. So, we have non-mandatory sort of educational tidbits in the back.

The actual standard—it looks pretty big, but the actual standard is about 20 pages. And it may look complicated. When you are ac-

tually in the industry, you are going to know about a lot of these things already.

This is just great reminders—mandatory reminders—of what you have to do to keep your facility safe.

Thank you.

Chairman MILLER. Thank you.

And I would just add to that that at the outset—I forget if you were here or not—but it was made pretty clear that this is a process, it is a consensus process.

These regulator drafts, or regulations, are a result of a consensus process with business and regulators and other associations and other interested people. That is why we tried to go there first, that that was sort of the lowest temperature.

Mr. Foulke, my understanding is that Imperial Sugar was not on the national emphasis program list either.

Mr. FOULKE. No, that is incorrect, your honor—or Mr. Chairman.

Chairman MILLER. Could you check that, because that is our information. If you would check that out. We were told locally—

Mr. FOULKE. They had not been inspected under the national emphasis program, but they would have been on the list of facilities to be inspected eventually.

Chairman MILLER. Okay. Well, if you would—

Mr. FOULKE. They would—

Chairman MILLER. If you could provide that information, because we have received information—

Mr. FOULKE. I will be happy to check into that, yes, sir.

Chairman MILLER [continuing]. When we were on site, that that was not the case.

Ms. Miser, what do you think?

Ms. MISER. As far as the standard goes? I feel like, to me it makes no sense to do all this work, and have everything put into this, and not just make a standard. If you are going to do it all anyways, and everybody says they are going to do it, then make a standard.

And I also feel like there are some companies—I mean, there are many companies that are doing it and that are trying to do it, and that are doing their best.

But the standards are for the companies that really do not care. And there are companies out there that do not care. I don't like to say that, but it is a fact. It is just the way things go.

And I feel like this standard—if there is a standard made, it will be applied to those people, to where it needs to be. And I would really love to see it done.

I mean, there is nothing else I can say about that, except for that it really—it would target the people that it should be, the standard would be. And the voluntary things, I think people are trying to do that, too.

But I think people would take it more seriously if there was a standard, also, rather than just voluntarily doing this, because I feel like, if you are volunteering to do it, sure, you are doing a good thing, you are doing what you should be doing. But you are not going to pay as close attention as to what is really going on.

Chairman MILLER. Thank you.

Mr. Wright, if I might. We are going to end this hearing, because we have got a vote, and I do not think we can justify your time to wait for us to go to another vote.

I am correct in understanding, Mr. Wright, that you essentially said that OSHA's response to your recommendations was unacceptable. And that is or is not the first time that the Chemical Safety Board has made that reaction to a response to their recommendations?

Mr. WRIGHT. Is this with respect to the reactive chemicals?

Chairman MILLER. Yes.

Mr. WRIGHT. Yes, sir. We have an open unacceptable standing, I guess, or classification for that particular recommendation to OSHA.

If I may, sir, I would like to add with respect to the discrete regulations that Secretary Foulke spoke of. The general duty clause, the housekeeping standard, the ventilation, the electrical—those are all discrete documents that one would have to go search for or hunt out or review.

And what we are asking for is something that would give us one-stop-shopping, that would encapsulate all the requirements, as well as those that are contained in NFPA's.

There is no place within the OSHA standards currently for management of change, in engineering design, explosion prevention techniques and specifications. And we would like to see those included in this comprehensive standard.

Chairman MILLER. Well, I think that goes to Ms. Miser's point. And that is that businesses would—you know, they essentially either cherry-pick the knowledge or they, even without cherry-picking it, they are not aware that this is contained somewhere else, or they do the things that—cherry-pick the easy things to do, or they think they are responding properly.

But unless they can see a continuum of a plan and a scheme how to keep the workplace safe, they in fact, I don't think, are able to properly comply in terms of providing the kinds of protections that are necessary.

I just—you know, I would just say in conclusion, that I would hope that OSHA—well, I would hope that our legislation passes, because we are not going to—hopefully not leave this to doubt, given the kind of accident that we have seen recently in Savannah and we have seen up until Savannah, that we have an opportunity to deal with that.

But at some point, this has to be a comprehensive regime. I believe it has to have the force and effect of regulations for the core component of that regime. And I would hope that, rather than avoiding that process, that OSHA would understand that.

I appreciate you want to run every trap until you get to be told to do that. I think you have to show that you can do both, because I think at the end of the day, this is not going to work without that regulatory scheme.

As I said, we are trying to start out here at a user-friendly point, and then OSHA can make its determinations over the next couple of years. But clearly, this regime should be put in place.

I am a partisan with respect to the Chemical Safety Board. I worked very hard for them to come into existence, and I fought

very hard against the chemical industry and others that wanted them out of existence. And we knew what we were doing.

We were trying to get somebody who was impartial, who was not there to find fault, who was there to look at the causation of these and make recommendations. And I think that they have developed over the years to be the gold standard in that effort back and forth.

But I do not take their finding of this response being unacceptable. And I do not take lightly to the idea that we can somehow tailor a lot of different programs at a lot of different levels, and recommendations and Web sites and all the rest of that, and we can then impute the kind of knowledge and activity that is necessary to protect these workers.

So, this committee will continue that deliberation. But I hope that we will shortly be able to take action.

And I want to thank all of you for your testimony, for your expertise. And I hope that we will be able to continue to call on you as we move to the next stage of this process.

Thank you.

[The statement of Mr. Altmire follows:]

**Prepared Statement of Hon. Jason Altmire, a Representative in Congress  
From the State of Pennsylvania**

Thank you, Mr. Chairman, for holding this important hearing on the Combustible Dust Explosion and Fire Prevention Act of 2008 (HR 5522).

I would like to take this opportunity to express my condolences to all of the families who lost loved ones at the Imperial Sugar plant explosion in Savannah, Georgia on February 7, 2008. My thoughts and prayers are also with the 11 plant workers who remain in critical condition. I wish them all a speedy and full recovery.

Today, I want to hear more about the conditions that led to the explosion at the Imperial Sugar plant and about similar explosions caused by combustible dust in the recent past. I am also interested in learning more about the specific provisions in the Combustible Dust Explosion and Fire Prevention Act.

Thank you again, Mr. Chairman, for holding this important hearing.

[The statement of Ms. Woolsey follows:]

**Prepared Statement of Hon. Lynn C. Woolsey, a Representative in Congress  
From the State of California**

Thank you, Mr. Chairman for holding this hearing on "The Combustible Dust Explosion and Prevention Act." This legislation, which requires OSHA to issue a comprehensive combustible dust standard, is essential in keeping workers safe. I am proud to be a cosponsor of it.

This legislation is a follow-up to a February 8, 2008 letter that Chairman Miller and I sent to Secretary Chao urging her to issue a combustible dust standard.

But that suggestion has gone unheeded, so we, in Congress must step in to protect American workers.

My heart goes out to Tammy Miser—you are so brave to come here and testify today—and all the other family members of the workers killed and injured as a result of an explosion at the Imperial Sugar Refinery in Georgia on February 7 of this year.

Twelve workers were killed and 8 others remain in critical condition due to severe burns.

The culprit was combustible dust.

This is yet another incident could have been prevented, had OSHA put a comprehensive standard in place to address the dangers of "combustible dust."

I wish I could say that OSHA's lack of action is surprising; sadly it is not. This Administration has the worst record of standard setting of any administration in the history of the law.

For the past 7 years, it has abdicated its role as a safety and health watchdog, relying instead on voluntary—largely ineffective—programs. Last year, my Subcommittee on Workforce Protections held a hearing on the dangers of the chemical

diacetyl in the workplace. Like combustible dust, the hazards of diacetyl have been well-known for years.

The Administration strongly resisted putting a standard for diacetyl in place despite growing evidence that exposure to the chemical causes “popcorn lung,” a disabling and often fatal respiratory disease.

So I introduced a bill, The Popcorn Lung Disease Protection Act, to force the Administration to develop a standard for diacetyl. This legislation passed in the House and is pending in the Senate.

Now we now need to take the same action with regard to combustible dust, despite the fact that OSHA is well aware of the necessity for a standard, made even more urgent by the tragic events at Imperial Sugar.

In fact in 2006, the Chemical Safety Board conducted a major study of combustible dust and its dangers. It reported that between 1980 and 2005, there had been 281 incidents, including incidents at sugar plants that killed 119 workers and injured 718. And it pointed out that there were proven methods to control combustible dust hazards that had been around and in use for years.

As a result of its study the Board recommended that OSHA put a comprehensive combustible dust standard in place to prevent these hazards.

But more than a year later OSHA is not taking any action to establish a standard.

We know that the standards OSHA has established have saved literally thousands of lives.

For example, in 1978 when OSHA’s cotton dust standard was adopted, there were 40,000 cases of Brown Lung disease annually—12 percent of all textile workers suffered from this deadly disease.

By 2000, and because of the OSHA standard, brown lung was virtually eliminated.

OSHA’s 1978 standard on lead dramatically reduced lead poisoning.

And the 1989 Excavation Standard designed to protect workers from trench collapses has reduced deaths by more than 20% while construction activity has increased by 20%.

Mr. Chairman, workers need a standard on combustible dust, and they need it now.

Thank you for your commitment to this issue.

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[Questions for the record submitted to Mr. Foulke follow:]

COMMITTEE ON EDUCATION AND LABOR,  
U.S. HOUSE OF REPRESENTATIVES,  
Washington, DC, March 13, 2008.

Hon. EDWIN FOULKE, *Assistant Secretary of Labor,  
U.S. Department of Labor, Constitution Avenue, NW, Washington, DC.*

DEAR ASSISTANT SECRETARY FOULKE: Thank you for testifying at the March 12, 2008 full Committee hearing on “The Combustible Dust Fire and Explosion Prevention Act of 2008.”

At yesterday’s hearing, you committed to answering the following questions that were raised at the hearing.

1. Please inform the committee of the number of OSHA Compliance Safety and Health Officers who have received OSHA’s three-and-a-half day combustible dust training program(s), and the date(s) on which those trainings were held. We would also like to know how many CSHOs received training in OSHA’s combustible dust “refresher” training held on March 10, 2008.

In addition, your testimony recommended that businesses take advantage of free assistance provided by state consultation programs. Please include information on how many state consultants have participated in OSHA’s three-and-a-half day combustible dust training program(s) and/or the March 10 “refresher” course.

Please supply the training curriculum along with the aforementioned information.

2. The Committee has learned that the Imperial Sugar plant in Port Wentworth was not included in the original list of facilities supplied to the Savannah Area Office under the October 18, 2007 Combustible Dust National Emphasis Program. You responded that Imperial Sugar was on the list.

Please supply the committee with a copy of the original list sent to the Savannah Area Office.

In addition, Ms. Woolsey (CA-06) asked that you respond to the following questions:

1. Your testimony cites many OSHA standards with approval. Yet OSHA has been resistant to promulgating new standards. In what instances would OSHA decide that a standard is absolutely necessary?

2. You have testified that while you have not ruled out a standard, you want to try the National Emphasis Program first. Why have you chosen to proceed in that fashion, given the most recent incident at Imperial Sugar and the fact that the Chemical Safety Board recommended to your Agency over a year ago that you promulgate a comprehensive standard for combustible dust?

3. The number of standards that arguably apply to combustible dust is dizzying. How do those businesses with combustible dust issues sift through these standards and apply them to their own situation?

Please send your written response to the Committee staff at by COB on Wednesday, March 26, 2008—the date on which the hearing record will close. If you have any questions, please contact the Committee. Once again, we greatly appreciate your testimony at this hearing.

Sincerely,

GEORGE MILLER,  
*Chairman.*

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[Responses to questions for the record from Mr. Foulke follow:]

U.S. Department of Labor

Assistant Secretary for  
Occupational Safety and Health  
Washington, D.C. 20210



30 APR 2008

The Honorable George Miller  
Chairman  
Committee on Education and Labor  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Chairman Miller:

Thank you for the opportunity to testify before the Committee on March 12 regarding H.R. 5522 and combustible dust.

Enclosed are OSHA's responses to the Committee's follow-up questions raised at the hearing and responses to questions submitted by Congresswoman Woolsey. Enclosures also include a CD-Rom containing the course curriculum of OSHA's Course #3320, the Combustible Dust Hazards and Controls class, and Course #9320, the Combustible Dust Seminar, the March 10, 2008 refresher class. Also enclosed is a copy of the list of the 20 randomly-selected establishments for use by the Savannah Area Office in executing the combustible dust NEP in October 2007.

Sincerely,

Edwin G. Foulke, Jr.

Enclosures



**Committee Follow-up Question 1:** Please inform the committee of the number of OSHA Compliance Safety and Health Officers who have received OSHA's three-and-a-half day combustible dust training program(s), and the date(s) on which those trainings were held.

**OSHA Response:** To date, 40 OSHA Compliance Safety and Health Officers (CSHOs) received OSHA's 3-1/2 day training, Course #3320, the Combustible Dust Hazards and Controls class, which was taught December 4 - 7, 2007 at the OSHA Training Institute (OTI) in Arlington Heights, Illinois. OSHA is planning to conduct another 3-1/2 day training session at OTI from April 28th - May 1, 2008, and has plans to continue this training at least annually.

Similarly, 323 compliance officers have received the half-day training on combustible dust hazards. Additionally, based on a Maryland Occupational Safety and Health (MOSH) request, on January 24, 2008, OSHA provided assistance to MOSH in training 70 of its compliance officers and safety and health managers on how to recognize combustible dust hazards and the means to prevent them, during a one-day combustible dust hazards training session.

**We would also like to know how many CSHOs received training in OSHA's Combustible Dust "refresher" training held on March 10, 2008.**

**OSHA Response:** 722 Federal OSHA personnel took the two-hour combustible dust refresher training held on March 10, 2008. Of this total, 449 were compliance officers. OSHA believes it is no less important that OSHA Area Office Directors and Deputy Directors, as well as Regional and National Office personnel, take this training, as they are actively involved in the dust inspections that result in citations and subsequent case reviews and citation determinations.

**In addition, your testimony recommended that businesses take advantage of free assistance provided by state consultation programs. Please include information on how many state consultants have participated in OSHA's three-and-a-half day combustible dust training program and/or the March 10 "refresher" course.**

**OSHA Response:** Four Consultation staff received OSHA's three and a half day combustible dust training. Eleven state consultants participated in the March 10 refresher training.

**Committee Follow-up Question 2:** The Committee has learned that the Imperial Sugar plant in Port Wentworth was not included in the original list of facilities supplied to the Savannah Area Office under the October 18, 2007 Combustible Dust National Emphasis Program. You responded that Imperial

Sugar was on the list. Please supply the committee with a copy of the original list sent to the Savannah Area Office.

**OSHA Response:** When OSHA launched the Combustible Dust NEP in October of 2007, a confidential list of establishments identified by the Standard Industrial Classification/North American Industry Classification System (SIC/NAICS) Codes was generated for each of the OSHA Area Offices. The Imperial Sugar refinery was one of the establishments identified under this process for the Savannah Area Office. Since OSHA is required to maintain neutral selection criteria for selecting establishments to inspect, the Area Office contacts the Office of Statistics in the OSHA National Offices and requests an inspection cycle for targeting inspections under the NEP. A list of establishments is then pulled randomly from the master list and provided to the Area Office as an inspection cycle or list. The Imperial Sugar facility at Port Wentworth was on the master list of 278 facilities for the Savannah Area Office. The list for the initial cycle of inspections contained 20 sites and did not include this particular facility.

**Congresswoman Woolsey Question 1:** Your testimony cites many OSHA standards with approval. Yet OSHA has been resistant to promulgating new standards. In what instances would OSHA decide that a standard is absolutely necessary?

**OSHA Response:** Since 2001, OSHA has issued 23 regulations. OSHA establishes its regulatory priorities primarily by considering two factors. The Agency may find that a new or revised standard is necessary when available information on a given hazard indicates that employees are exposed to significant risk, injury, or death, and that existing standards, if any, are not sufficient to mitigate that risk. The Agency may also find that a standard is necessary if OSHA's existing standards are so seriously outdated as to render enforcement or compliance with the standards difficult because of changes in technology or current work practices.

There are 17 standards that currently address the risk from combustible dust hazards, including those covering dust accumulations, electrical safety, powered industrial trucks, grain handling, emergency action plans, and hazard communication. While OSHA is considering whether to develop a combustible dust standard, the Agency has increased its enforcement activity by initiating an NEP in October of 2007 to reduce risks to employees exposed to combustible dust hazards in the workplace. The Agency will use information obtained from enforcing existing standards under the NEP, as well as from the Imperial Sugar investigation, to evaluate the effectiveness of existing standards and determine if additional regulatory action is necessary and appropriate.

**Congresswoman Woolsey Question 2:** You have testified that while you have not ruled out a standard, you want to try the National Emphasis Program first. Why have you chosen to proceed in that fashion, given the most recent incident at Imperial Sugar and the fact that the Chemical Safety Board recommended to your Agency over a year ago that you promulgate a comprehensive standard for combustible dust?

**OSHA Response:** Initiating an NEP is an effective response to address a hazard and can be implemented quickly. In contrast, rulemaking is a deliberative and public process to ensure that regulatory requirements imposed on employers are necessary, appropriate, and feasible. The process dictated by the OSH Act, Administrative Procedures Act, and other statutes necessarily takes time to complete before OSHA can promulgate and enforce a standard. OSHA's strategy of implementing the combustible dust NEP combined with an aggressive outreach program gets hazard information to employers more quickly than rulemaking can, thereby enabling employers to recognize and abate hazards more quickly to protect employees. The results of the NEP will also inform OSHA on the effectiveness of enforcing existing standards to address combustible dust hazards.

**Congresswoman Woolsey Question 3:** The number of standards that arguably apply to combustible dust is dizzying. How do these businesses with combustible dust issues sift through these standards and apply them to their own situation?

**OSHA Response:** As the OSH Act states, employers are responsible for furnishing employees with a workplace free of recognized hazards that are likely to cause death or serious injuries. Almost all employers, not just those affected by combustible dust, have responsibilities under electrical, housekeeping, hazard communication, emergency action plans, and exit routes. Individual employers are often required to follow even more standards, depending on the individual workplace and the hazards encountered in each.

To assist employers, the OSHA Web site has a wealth of information in a user-friendly format. Specifically for combustible dust, OSHA published a comprehensive Safety and Health Information Bulletin in July of 2005, and the NEP Directive is posted on OSHA's web page. These documents help employers better understand combustible dust hazards, applicable OSHA standards, appropriate national consensus standards, as well as industry best practices. To make it easier for employers to locate information on combustible dust hazards and applicable standards OSHA recently launched a web page specific to combustible dust hazards

(<http://www.osha.gov/dsg/combustibledust/index.html>). OSHA will be developing additional guidance products to further assist employers in understanding their obligations.

The OSHA Web site has helpful information specially tailored for small business owners who often do not have a safety professional on staff. Also to assist these employers in understanding their compliance obligations, OSHA's On-Site Consultation Service offers free and confidential advice to small and medium-sized businesses in all states across the country, with priority given to high-hazard worksites. Consultation services are separate from enforcement and do not result in penalties or citations.

# *Combustible Dust FY 2008*

| Random #                | DUNS      | COMPANY                        | ADDRESS                | CITY          | STATE | ZIP   | EMP | SIC  |
|-------------------------|-----------|--------------------------------|------------------------|---------------|-------|-------|-----|------|
| <b>SAVANNAH (18400)</b> |           |                                |                        |               |       |       |     |      |
| 19                      | 96939479  | Solid Waste Management Auth    | 502 E 16th Ave Ste C   | Cordale       | GA    | 31015 | 50  | 4953 |
| 35                      | 016412749 | Rebar Unlimited Steel          | 237 Lumpkin Rd W       | Leesburg      | GA    | 31763 | 32  | 3499 |
| 37                      | 054214432 | Hickory Springs Mfg Co         | 122 Basket Factory Dr  | Americus      | GA    | 31709 | 98  | 3086 |
| 54                      | 144837031 | Aero Kolls                     | 16 Pecan Dr            | Hazlehurst    | GA    | 31539 | 20  | 2221 |
| 64                      | 790270465 | Savannah Cinnamon & Cookie     | 2604 Gregory St        | Savannah      | GA    | 31404 | 12  | 2052 |
| 84                      | 018177043 | Tencor                         | 208 Industrial Blvd    | Pelican       | GA    | 31326 | 60  | 3354 |
| 111                     | 617185798 | Savannah Metal Works Inc       | 102 Estus Dr           | Savannah      | GA    | 31404 | 20  | 3441 |
| 143                     | 040203734 | Operations Management Intl Inc | 115 Bass Dr            | Richmond Hill | GA    | 31324 | 12  | 4952 |
| 151                     | 809577919 | Precision Machine of Savannah  | 8 Tellair Pl           | Savannah      | GA    | 31415 | 50  | 3469 |
| 163                     | 093703650 | Georgia-Pacific Corporation    | Hwy 280 W              | Clifton       | GA    | 30417 | 97  | 2421 |
| 171                     | 957368195 | Home Products Intl - N Amer    | 323 Industrial Blvd    | Thomasville   | GA    | 31792 | 75  | 3089 |
| 190                     | 178894481 | Operations Management Intl Inc | 613 E G Miles Pkwy     | Hinesville    | GA    | 31313 | 70  | 4952 |
| 200                     | 132835208 | Lelica Corporation             | 1541 ME Thompson Dr    | Valdosta      | GA    | 31601 | 65  | 3089 |
| 210                     | 011681322 | Waste Industries USA Inc       | 361 Monath Mill Rd     | Americus      | GA    | 31719 | 47  | 4953 |
| 218                     | 003299526 | Arizona Chemical Company       | 1401 E Hill Ave        | Valdosta      | GA    | 31601 | 80  | 2861 |
| 223                     | 620560600 | Wood Tech Mfg & Sup Co         | 123 Wood Tech Dr       | Rochelle      | GA    | 31079 | 70  | 2431 |
| 224                     | 032337800 | Reese Building Components In   | 207 Dexter Wilson Blvd | Sylvester     | GA    | 31791 | 75  | 2439 |
| 233                     | 170303239 | Stewart Park Homes LLC         | 219 Industrial Blvd    | Thomasville   | GA    | 31792 | 85  | 2452 |
| 237                     | 142199368 | Rayonier Prince Flours LLC     | 4474 Savannah Hwy      | Jesup         | GA    | 31545 | 600 | 3061 |
| 240                     | 015726714 | Soil Safe Technologies Inc     | 1618 Dean Forest Rd    | Savannah      | GA    | 31408 | 15  | 4953 |

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[Whereupon, at 1:00 p.m., the committee was adjourned.]

